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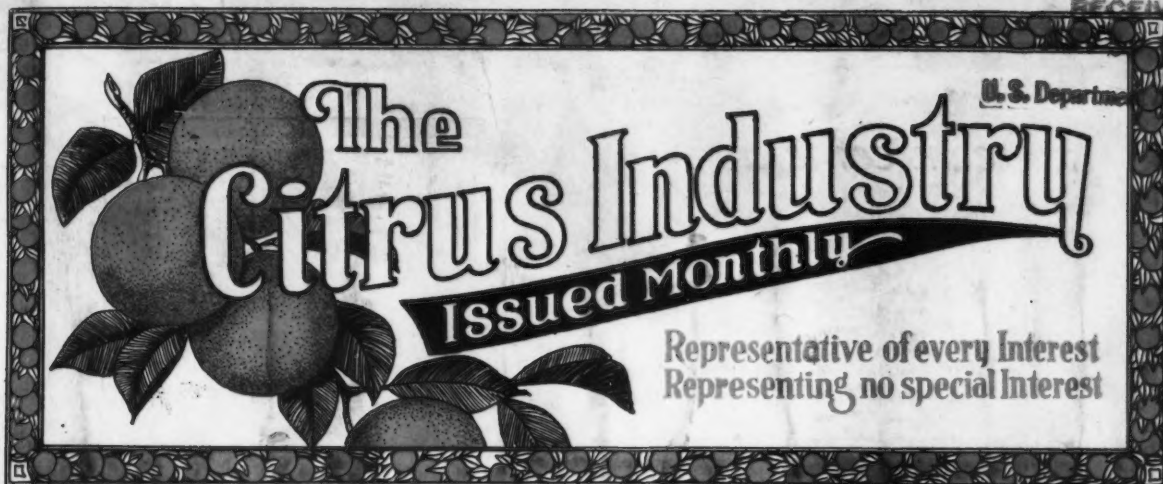
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Agriculture

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VOL. 5, NO. 11

TAMPA, FLA., NOVEMBER, 1924

15 CTS. A COPY



This Grove Might Sell Now for \$5,000 More

Call this gentleman Mr. "B," though that is not his initial. His grove property is up for sale. He has done his own figuring.

Last season he marketed 6,000 boxes, but not through this organization. Since then he has carefully collected facts from friends and neighbors. He tells us he finds our average for the same quality of fruit in his section was forty cents per box higher than he obtained.

Now he estimates that he not only lost \$2,400 by failing to get the full value for his fruit, but had he used AFG service his grove to-day could be priced at \$5,000 more, because of the better earnings it would show.

Painting fences and cleaning up a grove aid greatly in making a sale; but the price must always depend largely upon the showing of actual earnings.

Mr. "B," has done his own figuring. In consequence he has now contracted to have his fruit marketed through this service.

American Fruit Growers Inc.

Orlando, Florida



FLORIDA WEST COAST DEVELOPMENT NUMBER

a dream come true---

A reproduction from
photograph of a section
of veranda of Temple
Terraces Country Club.



TEMPLE TERRACES

ESTATES

Situated a few short miles from Tampa, reached by finest roads of permanent construction—built and building for residence, Temple Terraces is in reality “a dream come true.” Already many fine homes have been built and are now occupied—every city comfort and convenience is provided.

The Temple Terraces Country Club is one of the South’s finest and during the approaching winter its golf course will be the scene of many notable tournaments.

Inquiries are invited—Literature is available on request.



Temple Terraces Estates, Inc.

Tampa office Hillsboro Hotel Building..

There is every assurance that the Citrus Industry of this state is on a firm substantial footing. The grower may expect fair prices for his product this winter and in the years to come.

The forward looking planter will therefore lay his plans to round out his acreage and right now reserve the choicest trees to insure his getting exactly what he wants.

"Glen Trees Grow"

Glen Saint Mary Nurseries Company

Offices:

Tampa,
8th Floor
Citrus Exchange Bldg.

Winter Haven,
First State
Bank Bldg.

Orlando,
Orlando Bank & Trust
Co. Bldg.

Over forty-two years of Satisfied Customers has made this the largest

Citrus Nursery in Florida.

\$2,711,780 Worth of Lots Sold in 10 Hours

at

DAVIS ISLANDS TAMPA IN THE BAY

Present activity in Tampa real estate, the broadly planned building program and the indicated growth of the city with rapidly mounting realty values, places Tampa in the position of offering the best investment possibilities in the South today.

Backing up the possibilities for profitable investment is the solidity of the city as evidenced in part by the following:

Tampa's population has increased from 52,000 in 1920 to 124,000 in 1924, with an indicated population for 1930 of more than 250,000.

Tampa manufactures more clear Havana cigars than any other city in the world.

Tampa is the world's largest phosphate shipping center.

More than 40 per cent of the entire population of the state is within a radius of 100 miles.

Tampa is the center of the citrus industry of Florida. More than 75 per cent of the citrus fruit grown in this state is produced within 100 miles of Tampa.

To which are also added Florida's world-renowned climate and sub-tropical beauty. Here is industry and commerce in an incomparable setting of warmth and beauty—a city on the waters of the Gulf and Bay, in a state where Nature is kindest in all the world.

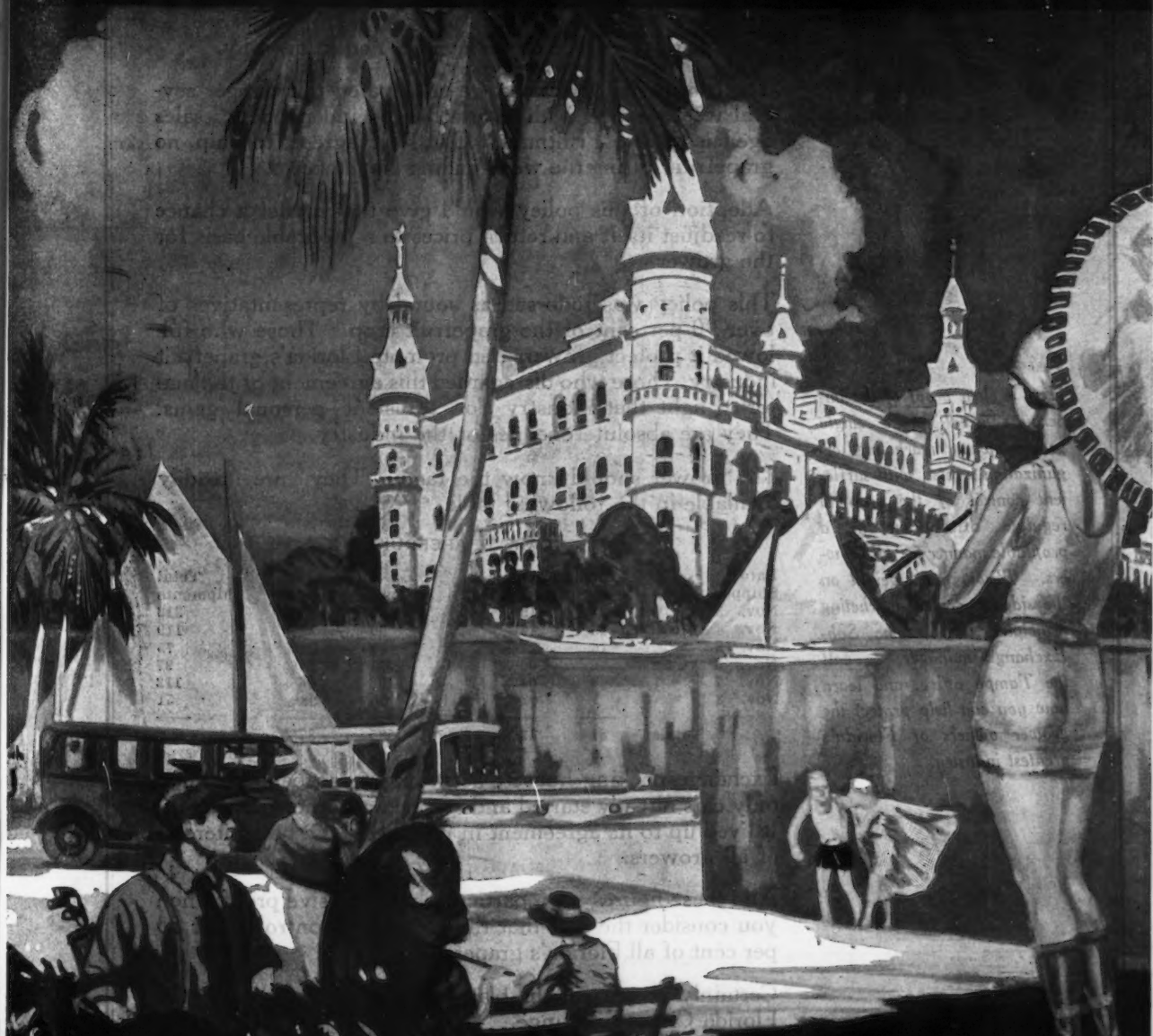
TAMPA greeted the opening sales of Davis Islands—Florida's new \$30,000,000 Island development—with local purchases amounting to \$2,711,780 in a period of ten hours, shattering every previous record for subdivision selling.

Thus did the people of Tampa place their unanimous stamp of approval on the famous bay island project fostered by D. P. Davis and destined to be America's finest development.

Every beautiful homesite on Davis Islands is within the city limits, one-half to two and one-half miles from City Hall, where profitable turnovers are rapid.

D. P. Davis Properties
Tampa—Florida's Year Round City

TAMPA Florida TAMPA Florida



Issued by Tampa Board of Trade
Tampa, Florida

"South of the South"

Who Broke the Grapefruit Market?

Grapefruit prices are down again. You know why.

The Florida Citrus Exchange anticipated this danger several weeks ago. With several large independent sales agencies (The Fruitman's Club), it agreed to ship no grapefruit during the week ending November 8.

Adoption of this policy would give the market a chance to readjust itself and return prices to a profitable basis for the grower.

This policy was indorsed as sound by representatives of over 90 per cent of the grapefruit crop. Those who followed it protect growers and promote Florida's grapefruit industry. Those who disregarded this agreement of the majority fight that industry for transient personal gains. They are absolute enemies of the industry.

The grower should know the facts. They are readily available in the following table:

CARS GRAPEFRUIT

Date Shipped	Citrus Exchange Shipments		Shipments Outside Cit. Ex.		Total Shipments
Nov. 3	31	15%	181	85%	212
Nov. 4	23	19%	96	81%	119
Nov. 5	16	21%	59	79%	75
Nov. 6	6	06%	91	94%	97
Nov. 7	4	04%	108	96%	112
Nov. 8	1	02%	50	98%	51
Totals	81	13%	585	87%	666

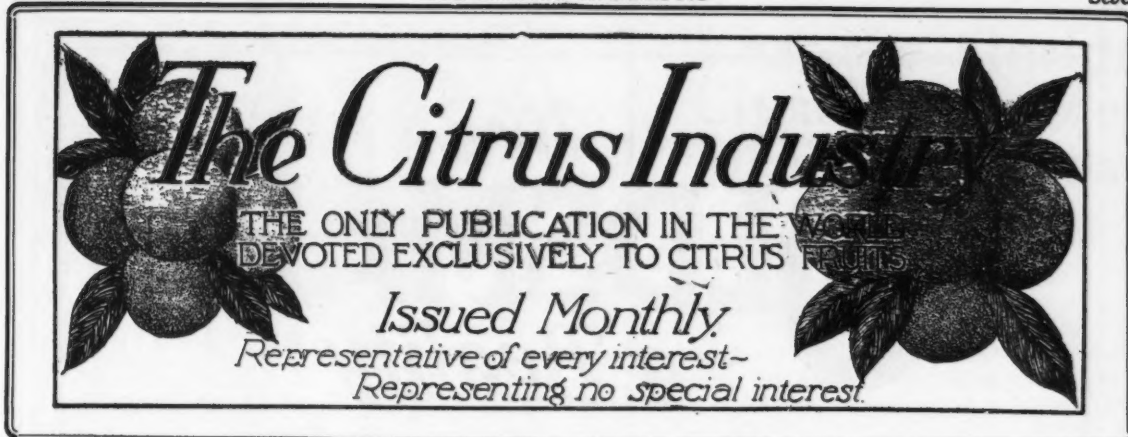
Exchange packing houses, according to agreement, filled only cars already started and stopped all other movement. It lived up to its agreement in protecting the best interests of all growers.

And these figures are a particularly conclusive proof when you consider the fact that the Exchange controls over 55 per cent of all Florida's grapefruit.

Certainly no part of the blame can be placed on the Florida Citrus Exchange.

Here is clear proof of the imperative need for a single grower-owned marketing organization, vested with sufficient control of the crop to regulate distribution in a profitable manner for all growers. Throw your weight on the side of correct marketing principles. See some Sub-Exchange manager, or call the Tampa office, and learn how you can help protect the grower owners of Florida's greatest industry.

FLORIDA CITRUS EXCHANGE



Vol. 5

TAMPA, FLA., NOVEMBER, 1924

No. 11

Tampa, Metropolis of South Florida

By Frank G. Heaton

Bankers, business men, investors, and all of that large class of American citizens who methodically scan the business maps issued by various commercial, industrial and financial agencies, have noted during the past summer that, while practically every other part of the United States has assumed a grayer and blacker aspect as the months passed, Florida, and particularly that portion of the state known as South Florida, and the Gulf Coast section, has remained in the white. On these business maps any section shown in gray is considered only fair, from a business standpoint: black indicates poor conditions; while sections wearing the virginal white are those in which business along all lines remains good. Tampa, and Tampa's trade territory, have remained constantly and consistently "in the white" during the entire summer.

This is not said in a spirit of gloating; that is not the Tampa spirit.

Rather, it is to point out the existence of a condition, instead of a theory or an idle boast, that Tampa's relative isolation, an island of white in a sea of grays and blacks, is stressed. Because there must be some sound and logical reason back of it, else the condition could not exist.

To use a slang, but expressive, phrase, "what it takes to make business conditions, investment opportunities and industrial activity, Tampa has it all." Climate—including about 360 days of sunshine a year—living conditions—making an out-of-door life not only possible but delightful the year round—unlimited opportunities for sound and profitable investments; an industrial field as wide and varied as can be found anywhere; transportation facilities by rail, water and motor trucks; a system of paved highways forming a network over the entire section and with trunk line communication with other parts of Florida and the North, East and Middle

West; and, greatest asset of all, a homogeneous, cordial, friendly people, the kind one wants for neighbors and friends. Add to these, schools of the highest class, churches of every denomination, all the other innumerable necessities of present day life, and the whole forms a sort of picture of the Tampa of today—inadequate, lacking the color that is held in the azure skies that span the Gulf Coast section, the golden sunshine that floods the days, the silver gleam of moonlight on the bays and inlets, lakes and streams; the green of rustling palms and the deeper hue of orange and grapefruit groves that stretch for miles upon the uncounted miles; the tender, feathery foliage of the pines, the somber, funereal gray of Spanish moss—all that goes to make the background of a picture of Tampa and the Gulf Coast section of this, Uncle Sam's most tropical territory other than the isles of the Far

Continued on page 16

FRANK BRYSON

REAL ESTATE

309 Franklin St.

—TAMPA—

Commercial and Subdivision Properties only

OLDSMAR

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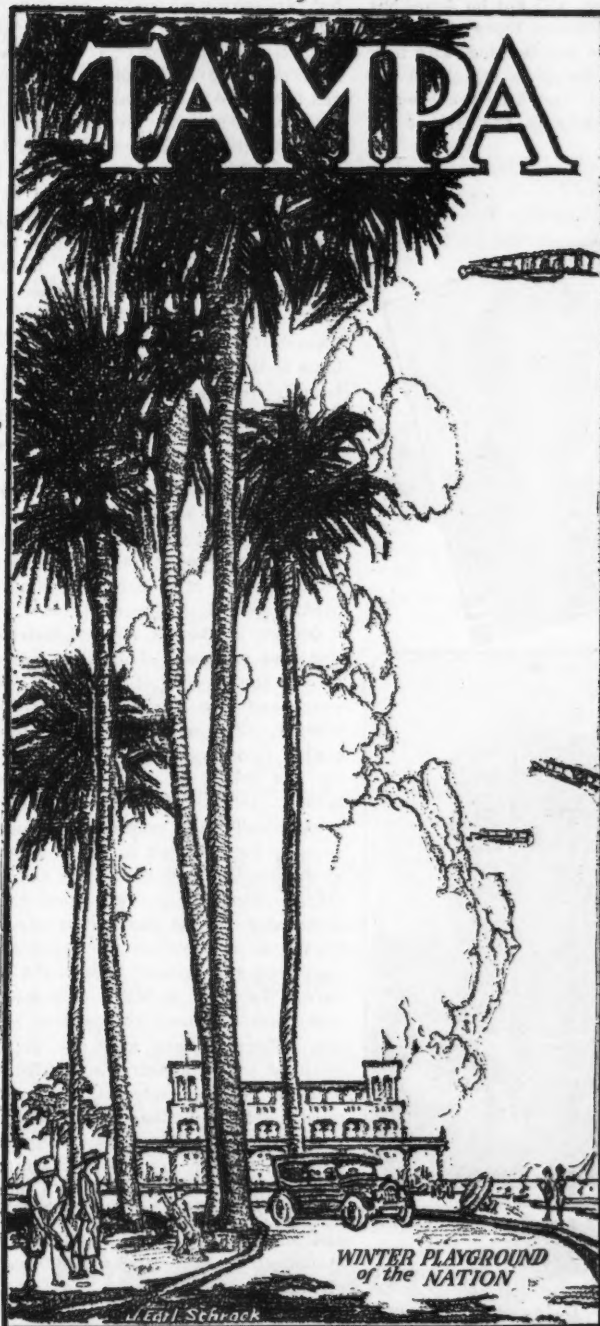
Fastest Growing Development
on the West Coast of Florida

On
Florida's
Finest
Highway



On the
Shores of
Old
Tampa Bay

HARRY E. PRETTYMAN



What the Florida Citrus Exchange Means to Florida

By L. M. RHODES

State Marketing Commissioner

There are, in round numbers, 260,000 acres of oranges, grapefruit and tangerines in Florida divided into 30,500 groves containing 11,000,000 bearing and 7,000,000 non-bearing trees. There is also some acreage of satsumas in north and west Florida. These citrus groves produce an average of nearly two boxes to the tree, or a little more than 20,000,000 boxes.

Under normal conditions the crop should net the grower at least \$30,000,000, and other people in the State would receive at present prices for freight, express, boat charges, insurance, interest, taxes, labor, salaries, picking, handling, selling, advertising, auto expenses, repairs, inspection, light, power, paper labels, paste, nails, straps, strips and crates, not less than \$35,000,000, making the total income to the State from the industry \$65,000,000. There is approximately \$60,000,000 more received by people outside of Florida for advertising, transportation charges, wholesale and retail profits. So at present the ultimate consumer is probably paying \$125,000,000 annually for Florida citrus fruits. This is Florida's most valuable soil crop and one of its greatest assets, and is no small industry, for it amounts to approximately \$65 per capita for the entire population of the state.

The possible production in the future is enormous. There is, perhaps, no county in Florida that does not grow some citrus fruit. But there are 33 counties that produce oranges, grapefruit and tangerines for commercial purposes. These 33 counties have a land area of 22,227,320 acres. Undoubtedly 25 per cent or 5,500,000 acres of this would grow citrus fruits. The 30 counties in north and west Florida that do not grow oranges, grapefruit and tangerines for sale in carlots, have a land area of 13,928,540 acres. Certainly 3,500,000 acres of this would grow satsumas. So there is not less than 9,000,000 acres of land in Florida that will grow citrus fruits. There is less than 170,000 acres of the 260,000 acres now planted to citrus groves in the 33 citrus counties in bearing. The smallest one of these counties has an area

The Oldest Real Estate Firm in Tampa, Florida.
BECKWITH & WARREN CO.—REALTORS
 "Established 1887"

For Investment Mortgage Loans Net 8%

Prompt Attention To All Inquiries

Residences — Business Properties — Acreage

We give Personal Attention to all Transactions

First National Bank Bldg.

TAMPA, FLA.

Ten

THE CITRUS INDUSTRY

of 187,520 acres. So if all the bearing citrus trees in these 33 counties were crowded into the smallest citrus county, there would be 17,520 acres left. The 5,500,000 acres of citrus land in the citrus belt gives us room for

This, of course, will not be done, but with 7,000,000 young trees already in groves to come into bearing, with new developments going on rapidly in the citrus sections, and with the eyes of the world on Florida, the lure of the

four grapefruit per capita per annum.

The citrus crop of the world will furnish only one box of fruit per annum to every 30 people. Yet there has been, and is, an ample production of citrus fruit for present demand. There is also room to expand the industry and increase production in Florida, for not more than one half of one per cent of the population of the world is eating citrus fruits, and less than 10 per cent of the people of the United States are consuming them.

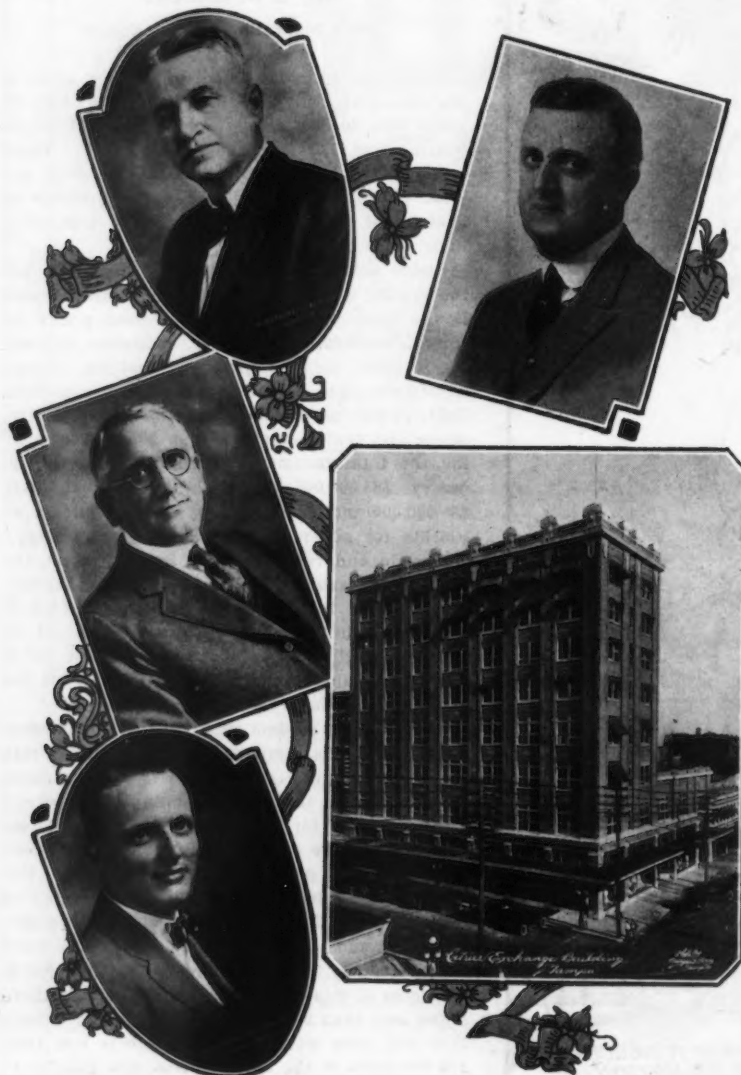
One of Florida's most vital problems is the economic production, systematic distribution, and profitable marketing of citrus fruits. The citrus industry is part of the industrial, economic, commercial and financial life of the state, and no industry operating on a sound business basis will increase production, or even continue to produce at all, when it is forced to sell at a loss or without a profit.

Orderly marketing, general distribution and increased demand is necessary to the success of the citrus business, and the financial welfare of Florida. We must advertise thoroughly to increase demand, standardize and grade, so as to secure and insure quality. We must produce economically and market efficiently so as to get the fruit to the consumer at a price that will encourage and increase consumption. We must have designated brands and uniformity of grades, so as to satisfy the buyer, and consumer and secure continued orders. We must stabilize crop movement and eliminate competitive selling. The business must be amply financed. The industry is entitled to skillful, efficient salesmanship. We must meet the demand with a regular supply, always giving the quality desired, furnishing the quantity wanted at the time it is wanted. We must have uniformity of grades and supply, and should have unity of purpose in standardizing, advertising and merchandising the output.

These various functions of marketing can best be done by one organization. The best example we have in the marketing of a similar commodity is the California Fruit Growers Exchange, controlling and marketing three-fourths of all citrus fruit produced in California. Conditions are such that no single organization may ever control all the citrus crop of California, or Florida.

The Florida Citrus Exchange, by far the largest shipper of citrus fruits in this state, ships as much perhaps

Home and Officers of Florida Citrus Exchange



L. C. Edwards, Pres.
Geo. A. Scott, Salesmanager.
J. Moscrip, Advertising Manager.

C. E. Stewart, Manager

more than 20 times as many citrus trees as we now have. If we count the 3,500,000 acres of land suitable for growing satsumas, we could have 35 times as many acres, in citrus, as we have at present. And as only 170,000 of the 260,000 acres are in bearing, there is enough citrus land in Florida to grow 50 times as much citrus fruit as we are now producing.

climate and the charm of citrus environment, the industry will steadily grow, and its production increase. However, the present production of oranges in Florida and California would only furnish one orange for each person in the United States every six days, or less than an orange a week, and the grapefruit produced in the United States will only supply

as all other marketing organizations and individual shippers in the state combined. Being a grower-owned and grower-controlled, co-operative marketing organization, made up of real citrus producers who have a vital personal interest in the success of the industry, it is the greatest factor in the successful marketing of Florida's citrus crop, and one of its greatest financial benefactors. It has by far the best chance to.

1. Take the control of fruit from many individuals and place it under one unit.
2. Provide standards of quality.
3. Merchandise orderly.
4. Regulate the movement and, in a measure, stabilize price.
5. Market the commodity as a whole, instead of by numerous localities.
6. Lessen the danger of over-production by more orderly and general distribution.
7. Substitute efficient marketing for dumping.
8. Give the producer improved, up-to-date facilities for marketing.
9. Reduce the cost of marketing.
10. Stimulate demand by giving the consumer a better quality at lower

cost.

11. Give group selling to individual production.
12. Unify grade, standard brands and trade marks.
13. Pay the expenses of extensive advertising.
14. Assemble the commodities and resources of the growers.
15. Secure efficient management and skillful salesmanship.
16. Eliminate variety of grades in different localities.
17. Make possible uniformity of methods, records and contracts.
18. Secure finances.
19. Prevent the shipping of culls and green fruit.
20. Supply demand and not over supply.
21. Make pooling possible and equalize returns.
22. Prevent local organizations from competing with each other.
23. Make possible a well equipped grading and inspection service.

In fact, to put hope, life, stamina, profit, progress and prosperity into the industry. In short, to do all the things necessary to economically, successfully and profitably grow and market citrus fruits, one of Florida's most valuable commodities, which means scores of millions of dollars to the state now and perhaps hundreds of millions of dollars in the future.

The Florida Citrus Exchange is a great factor in the finances, development and prosperity of the state, composed as it is of thousands of Florida's best citizens, contributing millions to its financial life, and furnishing employment to thousands of its people. It furnishes the methods, ways and means of developing, fostering and continuing one of its most essential and basic industries. The Florida Citrus Exchange means much to Florida and should have the loyal support and co-operation of our entire citizenship.

Sarasota, An All Year Around Resort

Sarasota, Florida's fastest growing city, lies on Sarasota Bay, widely known as the most beautiful body of water in Florida. The broad sweep

of Big Pass furnishes an opening into the Gulf of Mexico and gives Sarasota a magnificent vista of palm-studded

Continued on page 14

Unless You Have Seen

SARASOTA BEACH

You haven't seen the greatest investment opportunity in the entire south.

See Sarasota Beach and be Thrilled!

An Investment Today Means a Profit Tomorrow

BLAKENEY & BROWN

Sales Agents For Hillsborough County

Crescent Apartment Building

Tampa, Florida

TRAYLOR & WHIPPLE

Developers.

Sarasota, Florida

The Best Acreage Buy in Sarasota

Beach property fronting 860 feet on the Gulf and 485 feet on both sides of the main boulevard. Property lies within two and a half miles from the heart of Sarasota. Has three acres of riparian rights and fronts on the Gulf of Mexico, the Ringling Islands and the city of Sarasota.

Tract contains fifteen acres in all and is surrounded on all sides by extensive developments. Gulf front lots in this vicinity have sold for as high as from fifteen to twenty thousand dollars per lot.

This tract is ripe for immediate development and will return a tremendous profit and a quick sale on all sides by extensive developments.

Present price holds for ten days after which a sharp advance will become effective.

WRITE, WIRE OR PHONE

COOPER - HENSLEY COMPANY

307-8 Citizens Bank Building

Phone 2355

TAMPA, FLORIDA

The Citrus Industry

ISSUED MONTHLY

By

ASSOCIATED PUBLICATIONS CORPORATION
TAMPA, FLORIDA

S. L. FRISBIE, Editor and Manager

H. L. WALL Advertising Manager

A. G. MANN Production Manager

TELEPHONE:

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Branch office and production plant, Bartow, Florida.

GROVE CALENDAR FOR NOVEMBER

Timely Suggestions for Grove Work During the Present Month

Put out fall fertilizer on bearing trees; this should contain less nitrogen and more potash than in spring. Disc middles of bearing groves.

Bank young citrus trees.

If clean-up spray for citrus has been neglected, put it on.

Prune out all dead wood from pecan trees to control dieback; prune out mistletoe from pecan, citrus and park trees.

Fall and winter grove planting season begins this month. Do not buy nursery trees that have not been inspected and certified by the State Plant Board. See that the trees are completely defoliated, thoroughly scrubbed or fumigated and have certificate tags attached.

Do not buy stunted or scrubby nursery stock; it is a loss of time and money.

FLORIDA WEST COAST DEVELOPMENT

Departing from its usual custom of confining itself to technical and informative articles concerning citrus and allied topics, The Citrus Industry this month presents some evidences of the wonderful development which is taking place in that section of the Florida citrus field along the West coast, in the territory of which Tampa is the center and embracing the counties of Hillsborough and Pinellas.

While all of Florida, and particularly South Florida, is experiencing the greatest era of development ever known in the state, it is certain that no section of the state is at present making greater strides in progress and material advancement than the counties along the Lower West

Coast.

Hundreds of readers in Northern States have made inquiries of The Citrus Industry in regard to the actual condition of developments in the state, and it is in answer to these inquiries that this number of the magazine is devoted largely to telling the story of some of these developments in the territory of which Tampa is the center and in which citrus culture is by far the leading industry.

As the home of the Florida Citrus Exchange, the largest marketing organization in the state and which handles through its sub-exchanges the major portion of the state's citrus crop, Tampa occupies a leading position in the citrus world and in the financial situation of the state.

The story of the progress of this section will be of interest not only to thousands of readers outside the state, but also to many residents of Florida who are not personally acquainted with conditions along the West Coast, for while Tampa is the center of these development activities, no city nor community in this entire section of the state has escaped the touch of achievement now taking place under the advancing tide of progress which the entire citrus belt enjoys.

In presenting some facts in regard to this section, The Citrus Industry feels that it is but fulfilling its duty to its readers in visualizing in some measure some of the activities now under way. We believe that this number of the magazine will be of much value and great interest to its readers.

CARRYING THE STORY OF FLORIDA

Florida citrus growers may at times have legitimate quarrels with the transportation companies operating in the state over the question of rates. But no Florida citrus grower will be disposed to quarrel with the passenger department of the Atlantic Coast Line Railroad in its efforts to popularize Florida citrus fruits.

A recent folder in attractive colors has been issued by this railroad, showing the Florida orange and the Florida grapefruit in their natural colors, and setting forth the wonderful virtues of these popular fruits. These pamphlets are being distributed throughout the North by the Coast Line in the effort to bring additional visitors to Florida and to popularize the use of Florida citrus fruits.

No folder yet issued by any transportation company so fully and attractively sets forth the value and delicacy of Florida citrus fruits as does this little pamphlet of the Atlantic Coast Line.

Florida sentiment and green fruit shipments simply will not mix this season.

Liberal fertilization in the fall is necessary for an abundant bloom next spring.

Now is the time to make your plans and lay the foundation for the production of quality fruit next season.

The consumer buys his fruit by the eye. He commends or condemns it by the palate. Moral—the fruit must both look well and taste well to create and hold demand.



Picture of Fuerte Avocados on one limb of the Famous Dr. E. E. Schmidt tree.

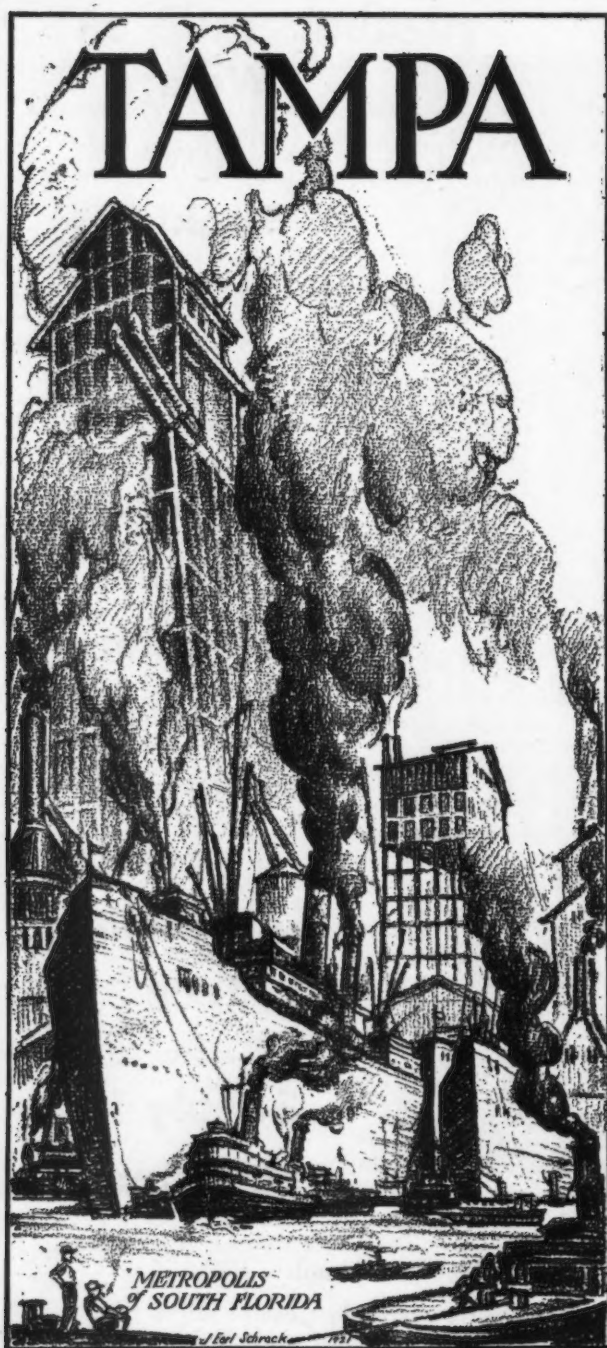
**We are
now
Booking
Orders
for
Trees
Budded
from
the Famous
Dr. E. E.
Schmidt
Fuerte
Avocado
Tree
==
Supply is
Limited**

Your commercial or home planting will not be complete without
some of Dr. E. E. Schmidt's Fuerte Avocado trees.

Write Today for Prices

Southern Nurseries, Inc.

Bartow, Florida



Citrus Steamship Line Established

Establishment of a Florida Citrus Exchange boat line, consisting of the steamships Itoloro, Twin Cities and Twin Ports, to transport fruit of its members from Florida ports to Atlantic seaboard cities, is announced by L. C. Edwards, president of the co-operative marketing organization.

As a result of the new freight rate on citrus shipments made available to Florida Citrus Exchange growers by the successful completion of preparations for this water transportation project, Mr. Edwards declared that they would be able to save hundreds of thousands of dollars in the marketing of their crops this season.

"The rate for fruit shipments over the Florida Citrus Exchange boat line will be 35 cents a box from Tampa to New York," says Mr. Edwards. "This same rate also applies on shipments from other Florida ports to New York. Compare this with the \$1.65 per box freight rate that the railroads charge for a haul from Tampa to New York, or the \$1.26 per box rate they assess for a shipment from Fort Myers to New York.

"On a shipment from Fort Myers to New York, as an example, we will be able to save from 75 to 90 cents a box, depending on the distance that the fruit must be hauled from the packing house to the boat. When we have shipped all the fruit into New York, Philadelphia, Boston and other seaboard markets that those cities can consume, we can transport the fruit carried to those ports by our boats to inland points over the railroads and still save at least 50 cents a box over the all rail rate. On the whole, we expect to ship fruit over the Florida Citrus Exchange boat line at one-third the rate that is available to other growers who do not have the advantage of this service."

All three of the boats in the service of the Florida Citrus Exchange will make two trips a month from Florida ports to northern seaboard markets, so there will be a total of six sailings every month. The first shipment over the new line will be made in November, on a date that will be announced later. All three of the steamships are equipped with modern refrigeration equipment which will enable them to carry fruit in as near perfect condition as possible.

SARASOTA AN ALL YEAR AROUND RESORT

Continued from page 11

keys and the blue waters beyond.

The very atmosphere of the entire region is vibrant with magnetized energy—tremendous forces of new blood, keen vision, great ambitions, noble purposes and, above all, like the hand of destiny is the main objective—the most magnificent city

in tropical America, a city of quality founded upon the rock of faith and endowed on every side with scenic settings the equal of which no region in all this hemisphere can boast.

"Sarasota Beach" with its winding boulevards lined with cocoanuts, royal palms and the many flowering shrubs of a tropical country, with its homes of harmonious design featuring the Spanish, Moorish or Venetian types of

architecture, will present a picture scarcely to be imagined by one who has not seen the transformation of Florida property. The prices of today will, we believe, seem ridiculously low a year or two from now.

Every street in "Sarasota Beach" will be hard surfaced, every sidewalk paved with cement, water will be piped to every lot and electricity will be made accessible to every residence.

In addition, street lighting will be provided. All these are set forth in the contracts of sale, and the time for the completion of all these improvements are also set out in the contract.

The type of architecture is restricted to Spanish, Moorish or other harmonious design, and everything in the contract will be carried out by the developers to the letter.

A canal to be known as the Canal De La Plata will be constructed in a winding manner so as to form an island in the center of the subdivision.

Far out in all directions the hum of saw, the tap of hammers and the whirl of industry is reaching in the construction of a dream city—an unending phalanx of artistic homes, magnificent estates, mile after mile of paved boulevards that will penetrate every nook and corner.

Thirty-five hours and forty minutes from the world's greatest financial mart, New York City, instead of a week of weary travel across the American continent. A fairyland indeed, receptive to every mood.

With the establishment of its Fall and Winter passenger service, the Atlantic Coast Line will provide, for the convenience and comfort of its

patrons coming to Florida, the most comprehensive program of train facilities in its history. Each day the Coast Line will bring into Florida 15 first class trains with a total of more than 100 regularly assigned through Pullman sleeping cars, having berth accommodations for more than 2,500 passengers.

The "Dixie Limited" will carry observation, dining and through sleeping cars from Chicago to Sarasota, and the "Floridian" will carry sleeping cars from Chicago through to Sarasota, its most southern termination on the West Coast.

RIO GRANDE CITRUS CHEAPER TO RAISE, EXPERT DECLARES

Citrus fruit can be grown more cheaply in the Rio Grande Valley than in California, according to Vocational Agricultural Teacher Henry L. Alsmeyer, who returned recently from a course in citrus culture at the University of California, and the Valley fruit is better than that from California, with the exception of the Imperial Valley grapefruit, which is all consumed in California.

The citrus condition in California

is serious now, due to the fact that there is little water, Mr. Alsmeyer explained. Most of the irrigation in California is from wells and rivers, and the supply of water is very short. This is proving a serious handicap to the citrus industry.

Citrus growing is more expensive in California because of the larger cost of irrigation, which is from \$35 to \$50 an acre per year, as against a much smaller cost in the Valley. Residents of California are forced to pay much more attention to the frost conditions, and to protect more, because there is an ever present danger of frost in California.

The more rapid growth of trees in the Valley was a fact mentioned by Mr. Alsmeyer, who said that a seven-year-old tree in California will compare favorably, as a general rule, with a four-year-old tree in the Valley. The good quality of Valley grapefruit, as compared with that of California, was one of the main points in Mr. Alsmeyer's statement that in the Valley is the better citrus area.

Healthy baby is the most valuable asset any community can produce. Give it a fair chance.

MERIT AT SUNSET PARK

"ON OLD TAMPA BAY"

A master development of a natural beauty spot where every detail merits the instant approval of those seeking the best in a homesite.

MERIT IN NATURAL BEAUTY

Sunset Park possesses all the natural beauty that is Florida's. Tropical shrubbery in profusion; a beautiful Beach Front; winding rivers and tidewater lakes.

MERIT IN BEAUTIFICATION

Plans for the beautification of Sunset Park were made with the idea in view of retaining all its natural beauty and adding only such changes as the placing of parks and parkways—the adoption of a planting system in keeping with the most modern lines of landscaping—the result has been that Sunset Park merits the title "Tampa's Paramount Subdivision."

MERIT IN PLANNING

The most modern ideas in planning were used in the arrangement of Sunset Park. Each and every one of the winding streets and wide boulevards were laid out with the idea in view of giving the homebuilder a setting that permits individuality in his home.

MERIT IN LOCATION

You reach your home in Sunset Park by three well established routes. Bay-to-Bay Boulevard, Henderson Boulevard or West Shore Boulevard. All three are main arteries of traffic from and to the Gandy Bridge. All three cut through Sunset Park.

MERIT IN VALUES

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Tampa, Metropolis of South Florida

Continued from page 7

East or the Canal Zone. For be it borne in mind that South Florida is nearly four hundred miles south of San Diego, California, and that Tampa is below the twenty-eighth parallel and only a short day and a half run from Havana.

Development and growth of the Tampa of today is a matter of such recent occurrence that Tampans themselves still are rubbing their eyes and finding it difficult to believe that the things they see and hear and learn every day really can be true. Four years ago Tampa and adjacent suburbs had a census population of slightly more than 50,000. Today the population of Tampa and its suburbs, actually, though not physically parts of the city, is in excess of 120,000, this figure being based on estimates by the Tampa postoffice, the police census, the school census, enumeration for registration purposes

and estimates by the publishers of the 1924 city directory. It is readily admitted that the estimate of 120,000 population for the city and its immediate suburbs probably is not accurate; well-informed men declare that it errs on the side of conservatism, and say that it should be increased by anywhere from 5,000 to 10,000.

Much of this increase in population and the accompanying growth, development and expansion of the Greater Tampa of today has occurred within the last two years; the awakening of Tampa really dates only that far back. Before 1921 or 1922 the city grew, of course, showing increases from year to year; but the growth was in the nature of slow accretion—a sort of self-caused and self-contained business. Perhaps the tropical storm of late October, 1921, was the medium that aroused the city from its dolce far niente; because, immediately after that visitation of Prov-

idence, the first of its kind in more than forty years, and the last, things began to happen.

Tampa, for years known only to smokers as the place where the best clear Havana cigars in the world were made, soon began to be known for other things. For three of four decades advertised only by its loving friends, the city began to use printer's ink in its own behalf; in a limited way at first, because such a thing never had been done before, and precedent is powerful here as elsewhere—for confirmation, note the stubbornness with which cattlemen resist efforts to banish the range cow from the public highways and private gardens, and the determination with which they oppose the plan of dipping said range cows to eradicate cattle ticks and make the cattle worth a great deal more money. The gradual passing of the range cow and the awakening of Tampa and South Florida to the value of widespread publicity have been almost coincident. Today, Tampa is one of the best known cities in the United States; which is as it should be, in view of the millions of questions on every conceivable subject relative to the city and its surrounding territory asked of and answered by the Tampa Board of Trade, the officials of the city, the banks and trust companies, and everybody else who in the opinion of the questioner may possess the desired information.

Just before the "big storm" Tampa adopted the commission-manager form of municipal government. Enthusiastic advocates of this form of government for cities date all of the present day development, expansion and general prosperity from that event; others not so enthusiastic are willing to admit a few other factors possibly may have entered into the equation—such things as Tampa's really wonderful year 'round climate, the magnificent bay that is the city's



A part of the Tampa Sky Line

ABSTRACTS OF TITLE



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front yard and the beginning of its highways to the seven seas; its more than five hundred miles of paved highways leading to every corner of Hillsborough county; the more than 115 miles of paved streets in the city itself; the vastly improved rail and water transportation afforded by two railway systems and half a dozen maritime shipping companies. All of these probably have had a share in bringing Tampa into the favorable attention that has resulted in the marvelous growth of the last few years along every line. Certain it is that the Tampa of today is known for more than its clear Havana cigars.

More than one hundred and fifty separate industries are represented in Tampa and its immediate environs. Products of these industrial establishments cover a range as inclusive as that of any other city in the United States, supplying the wants of Tampanians and residents of the city's trade territory from the cradle to the grave. That trade territory extends for nearly three hundred miles north and south along the Gulf Coast, and to the east it extends far beyond the middle of the peninsula. From the port of Tampa is shipped more phosphate than is sent out of any other port in the world, the exports going to practically every civilized country of the globe. Within a radius of a hundred miles of Tampa is located nearly 60 per cent of the world's supply of phosphate rock.

A little more than a year ago the city of Tampa purchased the plant and system of the Tampa Water Works Company, operating the system since then as a municipally owned utility showing a substantial profit each month. The city is now building a new plant and soon is to turn from water from deep wells to the Hillsborough River as a source of supply. The river water is to be decolorized, clarified, filtered and ren-

dered perfectly soft by processes worked out by Nichols S. Hill, Jr., eminent engineer and authority on water supplies and plants, of New York. Purchase of the water works and building of the new plant, with additions to the distributing system, entailed expenditure of close to \$3,000,000, bonds for the purpose being voted by a large majority. Having acquired the water works, the city last spring decided to embark on a municipal improvement program including the construction of three new and badly needed bridges spanning the Hillsborough River, a recreation pier at the city's park at Ballast Point, numerous extensions of the storm and sanitary sewer system, erection of a public auditorium, and other items. A bond issue of \$3,000,000 was decided upon for the execution of this program, and again the citizens of Tampa approved the action of the city commission and voted the bonds by what amounted to practically unanimous vote.

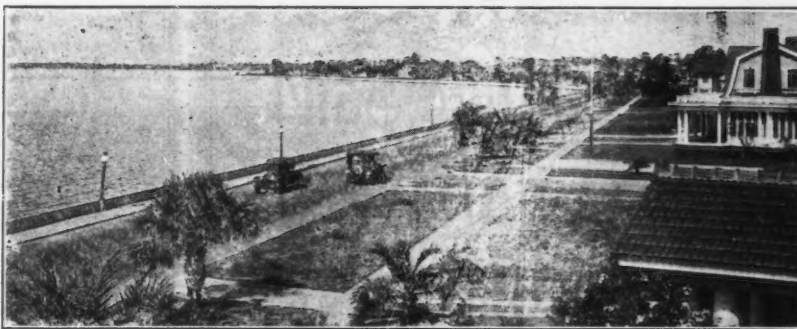
Tampa is perhaps the only American city that owns an immense and costly hotel, maintained under an operating agreement during the winter season. This is the Tampa Bay Hotel, built about thirty years ago by the late H. B. Plant, founder of the Atlantic Coast Line System, and, with

its magnificent tropical park, sold to the city by the Plant estate.

The South Florida Fair and Gasparilla Carnival, held each spring in Tampa, is a combination of international mid-winter exposition and Mardi Gras. The fair, to be held during the first two weeks of February, 1925, is a comprehensive and impressive display of the products of Florida, assembled by counties, with such features as a live stock show, poultry show, dog show, races, etc., in addition to the horticultural and agricultural exhibits. The Dominion of Canada makes an immense and interesting display at each annual South Florida Fair, as do other states, the Mexican government, and on two occasions the government of Cuba. The Gasparilla Carnival perpetuates in pageant and in carnival ball the memory of the pirate Jose Gasparilla, one of the boldest buccaneers of the Gulf a century ago.

A feature of the 1925 fair is to be the annual meeting and show of the American Plymouth Rock Club, said to be the biggest breed club in the United States.

Tampa boasts of her year 'round climate, and the boast is justified. Naturally, the sun warms up in the good old summer time in Tampa, just as it does almost anywhere else; but



A View on Bayshore Boulevard, Tampa

Groves - Homes - Acreage

Tampa will soon be the largest city south of Atlanta. Hillsborough County is one of the richest and most fruitful in Florida. If you want an orange grove, we have it. If you want a home in or near the city, we have that too. If you want acreage for farming, fruit growing, or investment, we have some of the largest and most desirable tracts among our listings. We have what you want—or we'll find it. Our offices are conveniently located; our services are at your disposal. Please make it a point to call upon us when you are in Tampa.

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records of the weather bureau show that the highest temperature recorded here in more than forty years was 98 degrees. Compare that with the temperatures above the 100 degree mark, such as afflict the cities of the north pretty nearly every summer. And in Tampa the nights are always cool enough for comfort—usually cool enough for a blanket. Many thousands of persons in the north, east and middle west who have visited Tampa during the winter season know the delights of that time of year in this favored Gulf Coast region. While cities of the East Coast capitalize the declaration that the Gulf Stream laves their shores, or eases along a score of miles or so out at sea, here we have the Gulf itself, where the Gulf Stream starts, and the Gulf is greater than its offspring, just as the whole is greater than any of its parts.

Building development and the creation out of raw Florida pine and palmetto lands of new suburbs as beautiful as the dream of an inspired artist have centered the attention of the nation on Tampa during the last year. No new subdivision of which the development cost is less than two or three million dollars stirs so much as a ripple in the blase Tampa

THE CITRUS INDUSTRY

of today. Half a dozen such operations are now in course of completion, the cost of which will run all the way from five or six million dollars up to thirty millions of dollars—the latter figure being the expected cost of development on Hillsborough Bay, at the river's mouth, of an island of nearly 1,700 acres, to be a millionaire's colony, with hotels, bathing beach, golf course, palatial residences, a deep channel for motorboat races, a protected basin for yacht and powerboat anchorage, and an artistic and monumental causeway connecting the island and the mainland.

Clearing house statements of Tampa banks have crowded the million dollar mark every day during the spring and summer just past, and at times have climbed above that mark. Perhaps that doesn't sound so big to ears attuned to the casual mention of billions, but it will be granted even by them that no struggling village shows such clearing house figures.

Saving the best for the last, every baseball fan knows that Tampa is the spring training ground of the Washington American League baseball team, champions of the world. Plant Field, which is the fair grounds, is the field on which "Bucky" Harris

looks over the annual spring crop of rookies and sees that the veterans work themselves into shape for the penant race; and the club rooms, equipped with hot and cold showers, lockers and every convenience of the home quarters, are Mike Martin's bailiwick.

Further, to show that the Gulf Coast section possesses magic powers when it comes to conditioning big league teams, the New York Giants, pennant winners in the National League, trained at Sarasota, less than sixty miles south of Tampa, while the Brooklyn Dodgers, runners up to the Giants in the National League race, trained at Clearwater, a little more than thirty miles west of this city.

Great is Tampa and the Gulf Coast section of South Florida!

Fall plowing stimulates and improves the soil; it turns under plant growth to rot and become valuable plant food.

To make dairying profitable the dairyman must learn to produce feeds on his farm and sell them to his cows.

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Tampa, Florida



The Peninsular Telephone Company

is keeping pace with the remarkable growth of Tampa and its Trade Territory by the provision of additional facilities during the coming year which will almost double its present plant.

THIS COMPANY'S local exchanges and toll lines serve the cities and communities in the Counties of Hillsboro, Polk, Pinellas, Pasco, Manatee and Sarasota.

Through connection with the lines of the Bell Telephone Company and American Telephone and Telegraph Company, telephone communication to all cities of importance throughout the country is available from any station of

The Peninsular Telephone Co.

Hillsboro Hotel, Tampa, Florida

VIEW THE CITY

From

Top O' The Town

Dining Room



Year after year, guests who have previously been with us, return to The Hillsboro. They are coming to us this fall in greater numbers than ever and we are glad to welcome them. It is our wish to extend the best quality of Tampa hospitality and to make these good friends feel that to stay at The Hillsboro is to LIVE in Florida.

For our Guests

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BATTLE CREEK BATHS

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Mr. Davis has lived in Tampa for thirty years. Has been most prominent in the building of Tampa. Is known throughout the State for his activities and valuable service in civic and fraternal organizations.
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Treasurer and Director Florida Mutual Fire Insurance Company.
Secretary Artesian Land Company, Tampa.

MR. J. E. PIERCE, DIRECTOR

Mr. Pierce has been a resident of Tampa for over forty years, where he is a successful and well-known business man.
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Director Tampa Traffic League.
Director Florida Mutual Fire Insurance Company, Tampa.

MR. ABE MAAS, DIRECTOR

Mr. Maas has been a resident of Tampa for more than thirty years, and is one of the leading citizens of Florida.
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Director Bank of West Tampa.
Vice-President Morris Plan Bank, Tampa, Florida.

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Mr. Ohlinger is strong financially. There is no man in this State who has a better reputation for honor and integrity than Mr. Ohlinger.

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Capitalist. Vice-President and Director of Southern Finance Corporation, Lakeland, Florida.
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Mr. Somers is one of the most active business men in South Florida, having had wide experience in large financial affairs, fitting him as a most capable director of The Southeastern Insurance Company.

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Home Office: 307 W. F. S. Bldg.

TAMPA, FLORIDA

"Oldsmar==the Suburb of Two Cities"

Written exclusively for The Citrus Industry

With the development of Oldsmar as "the suburb of two cities"—Tampa and St. Petersburg, Tampan have a show place to which tourists are being directed by those anxious to exhibit Tampa's finest displays.

With a remarkable fullness of detail and exactitude, Mr. Prettyman and his architect, Franklin O. Adams, Jr., have taken an ordinary store corner, at Franklin and Madison Sts. and developed a remarkable metamorphosis, the end of which finds Tampa possessed of a magnificent and inspiring edifice in the plateresque style unique to the Spain of several centuries ago.

One step from the business street at either side of the place gazing down upon a vista of an ancient patio and its loggia, nothing in the line of vision conveying any impression of a business office. There is no literature to sweep back one's imaginings and compel him to realize that after all, the effect wrought is a creation of today's craftsmanship and that this is not a Spanish patio of yore but a realty office of this season. One is permitted, on the contrary, to breathe to full content the atmosphere into which he has plunged himself and it is only when he hears the occasional tinkle of the telephone or the movement of the typewriter keys that he is stirred into appreciation that this is not a reality, but a work of art.

To develop the Spanish style, Mr. Adams delved deeply into history and tradition, always bearing in mind that while he was seeking to attain the artistic he must, always, maintain the utilitarian. For, after all, it was an office he had been assigned to renovate and reconstruct.

Happily, Mr. Adams recently had come into possession of a number of brownish-gray tiles, slightly tinted with red, and still wearing the mosses and accumulation of ages. These tiles had been rescued by an antiquarian as they were being broken from the roof of a convent, founded in 1534, now being torn down, the Convent of Jesus y Maria, of Cordova, Spain. This contributed its reality to the architect's fiction. Slightly brushed over with paraffine, the tiles

otherwise have remained the same.

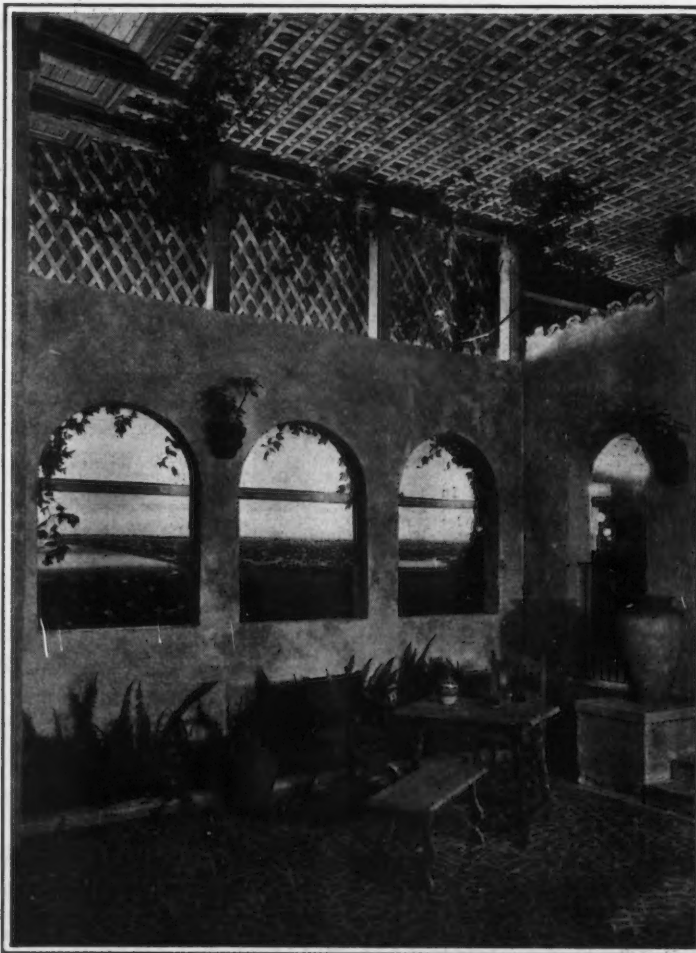
The more resplendent Andalusian tiles, also imported, were used in making the base of an Alhambran fountain installed in the rear center of the patio, Arch entrances and frequent light-giving arcades along the walls, a huge open fire place and frequent vines and growing ferns added to the impression sought to give.

Pecked Florida cypress wood, wrought and scorched on the premises, gave being to the beam ends and ceiling, an old Hyde Park fence being taken in exchange for a new one, the worm-eaten condition of the fence proving it just the thing for the pur-

pose of affecting antiquity.

Two vessels of ancient lines were installed to convey a reminder that all of the place was patterned on the era of Ferdinand and Isabella, the discovery of America by their protégé, the rise and power of the Spanish Armada, the overthrow by Spain of the vicious influence of the Moors. Incidentally, to heighten the effect of the Moorish influence, two negro lads have been employed to pose and stroll through the patio in the apparel of Moorish slaves. Too, a brilliant colored macaw has been placed on a perch to add to the impression of

Continued on page 24



A Corner in Harry E. Prettyman's new Oldsmar offices, Tampa, Florida. These offices were conceived by Architect Franklin O. Adams, Jr., and are of the unique Spanish Plateresque period, every detail being true to style.



Here is a photograph of the proposed development of the beautiful Davis Islands, Tampa—in the Bay. The physical operations here are progressing with such rapidity that ere it is realized this \$30,000,000 project—the finest in Florida—will be a joyful reality in the life of the famous West Coast.

With the road-bed work on Davis Boulevard completed throughout the Hyde Park section of Davis Islands and on its way to Bay Circle, paving operations on this expansive thoroughfare will be well advanced in early November.

At this point of progress, the gigantic Davis Islands building program will be started. Only a few days will be required before the actual construction of the \$750,000.00 Apartment House will start. Accompanying this activity will be the initial work on the

extensive home-building plans, embracing the erection and financing of 300 magnificent homes.

Following on the heels of this compelling activity will be the opening of new sections of Davis Islands, further street development, more and greater building operations, including gorgeously planned hotels, casinos and pools, gateways and plazas, golf, country and yacht clubs, yacht basins, piers—everything of a nature to guarantee Davis Islands residents a type of living which reaches vigorously toward the real ideal.

And in the wake of intensive development of this sort, investment opportunities multiply. The romance of Florida real estate values will find full expression in the immediate future of Davis Islands, in measure incomparably greater to that of any other development in the entire State..

The Banana Growers Convention

By W. E. Bolles, Oldsmar, Florida

When 650 people get together and talk banana-growing all day, as they did at the annual meeting of the Florida Banana Growers' Association in Winter Haven, October 29, it is convincing evidence that the banana industry in Florida is flourishing. And when the Association raised its annual dues from \$1. up to \$2.50 for the new fiscal year, it required five men to take the money, so great was the rush to pay up. This is additional evidence that the Association is on a sound practical basis.

One of the added benefits to all the members will be the publication of a book containing the speeches made at the convention, including the new Constitution and By-laws and other important information, which the Association has never been able to distribute before. A copy of this book will be mailed free to members, and sold to non-members. The active members will also receive other valuable information, besides having the satisfaction of co-operating actively to advance the best interests of all connected with this thriving food-fruit industry.

The new officers elected are:

President, Chas. L. Stokley, vice-president, S. B. Aultman; secretary, W. E. Bolles; treasurer, J. A. Johnson. Executive Board for three years, W. J. Kirkwood and Luther C. Johnson; for two years, Dr. J. C. Crist and Leo H. Wilson; for one year, Roland A. Nichols and J. R. Crum.

The Executive Board set its first meeting for November 15 to vote in new members, and all who wish to join and help make this Association a greater influence in Florida are requested to send in their applications now and \$2.50 which will pay all the requirements for one year, to November 1, 1925. They should be mailed to W. E. Bolles, Secretary, Oldsmar, Florida.

The list of speakers at the meeting was unusually good, and much valuable information was offered. It is impossible to publish all of these speeches in full here, but they will be available in the Association Official Proceedings. There was a fine exhibition of Florida-grown bananas and banana plants in charge of R. A.



W. E. Bolles

Nichols, at the baseball park, where a barbecue was served by the Winter Haven Chamber of Commerce, followed by motorcades to banana plantations and other points of interest.

Secretary Bolles said in his annual report that the Association has more members paid-up, and is in better condition than at any previous time since it was organized by him in 1921; there are 250 members, his office has distributed more than 10,000 pieces of free literature during the year, he has published valuable articles on banana-growing in the Literary Digest, with its circulation of 1,400,000 copies, and in the Scientific American and many other leading newspapers and magazines, including the Citrus Industry, Florida Grower, Florida Truckee, South Florida Developer, Florida Fruits and Flowers, Farm and Live Stock Record, Farmer and Stockman, and many others; telling the good news about the rapid progress of this new money-making food-fruit industry in Florida.

The address of welcome was delivered by Hon. John F. May, with response by Chas. L. Stokley. W. J. Kirkwood read the recommendations

of the retiring Board of Directors and the new Constitution and By-Laws, which were adopted. Speeches and papers were read as follows:

"Yes, We Have Them," by Frank Whitman.

"The Food Value of Bananas," by R. A. Nichols and Dr. C. F. Curtis, the latter stating that bananas contain all the food elements the human body requires, being very high in nourishing values.

Dr. J. E. Crump told about planting and handling bananas in muck soils. Chas. S. Rees told "Why We Should Grow Our Own Bananas." He said there are no diseases to afflict the banana in Florida, no insect pests to eat its heart out or sap its vitality. The banana growers can allow their fruit to get fully developed in Florida before shipping, and explains why a person who has eaten a good Florida banana always cries for more.

"Frosts and Protection" were discussed by Chas. L. Stokley. He said a freeze which might kill the visible part of the banana plant down to the ground, would not kill its roots. "The root system of the banana is its Rock of Gibraltar, so to speak, and there is no freeze within the memory of man in Florida, and probably never will be, that has killed or will kill the banana root system. When it gets cold enough for that, there will be nothing left of anything. At this time there appears to be two methods of frost protection, one of them outright insurance, the other being with grove heaters. The insurance rate for bananas is about 15 per cent per \$100. I have utilized this method of protection with my citrus groves and bananas for two years, and have found it very satisfactory."

"Marketing of Bananas" was presented in a very practical and optimistic manner by Dr. J. C. Crist, who said "First, we must standardize the bunches of bananas. They must be clean from blemishes, spots, scars, etc. Second, this organization should in some way safely guide people so they will put their plantations on real banana soil, and not produce a lot of inferior stuff to be thrown on the market and injure the banana busi-

Continued on page 24

Make More Money

by Growing Bananas

We are selling banana lands selected by our experts in the vicinity of Tampa, largest city in South Florida. Right kind of soil, right price, terms to suit. We can market your fruit with ours.

We plant five and ten acre tracts, and take care of them if you wish. Handsome profits for you. Bananas have made more money for us every year.

Our Superior Banana Plants deliver the goods, that's why. Vigor, vitality, health, big commercial-size bunches. We are rushed with business, that tells the story. Have booked orders for more than 30,000 banana plants to be delivered in 1925. Place your order now for spring delivery, 25% down with order, balance when delivery is wanted. February and March are two of the best planting months.

Bolles Improved Cavendish, 80 cents each.

Bolles Heavy-bearing Hart, 50 cents each.

Bolles Orinoco, 40 cents each.

It pays to plant the best. All other expenses are the same anyway.

We are forming a group to plant 120 acres more next spring.

Come and see us, two miles east of Oldsmar, 14 miles west of Tampa, out the Memorial Highway asphalt road. Or write us what you want to do. W. E. Bolles and Paul K. Bolles.

BOLLES BANANA PLANTATIONS

OLDSMAR — FLORIDA



Dusting and Spraying
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The Skinner line of Insecticides and Fungicides includes dusting and spraying materials of unusually high quality.

Due to the fact that our dusts are finer pulverized they are better fungicides and will not scald or burn, as frequently is the case from the use of inferior materials or spray.

A Skinner Dust for every truck crop.

Write for dusting guide and price list.

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J. E. Ingraham, Vice-President H. S. McLendon, Agricultural Agent

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Model Land Company has large acreages of the best types of agricultural and grove lands for sale. Some of this land is situated in drainage districts; several of these districts have been completed, others are nearing completion; still other tracts of land are located where there is no special drainage necessary.

Chuluota Company has exceptionally fine residential property as well as agricultural and grove lands for sale, in a beautiful high, rolling, pine, fresh-water lake region of Seminole County. This is situated on the Okeechobee Branch of the Florida East Coast Railway, and can also be reached by splendid highways from either Sanford or Orlando. Climatic conditions are fine in this locality the year round.

All the land companies will sell in large or small tracts, cash or terms. Their lands are located in all the East Coast Counties; principally in the following: Monroe, Dade, Broward, Palm Beach, St. Lucie, Osceola, Seminole, Flagler and St. Johns.

For definite information or particulars write the Main Offices or the local agents for sale of the Company's lands.

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Ralph Crosby San Mateo, Fla.

Main Offices: City Building, St. Augustine, Florida.
Jacksonville Office: 239 West Forsyth Street.

"OLDSMAR—SUBURB OF TWO CITIES"

Continued from page 20

Moorish richness in color. Other birds are found here and there in Spanish cages. But they are more subdued in hue and tone, for they are canaries.

Desks, doors, chairs and benches have been fashioned by hand. Vases and jugs were made on the premises. Everything possible was done to avoid mill work. Even the freshly laid cement was chipped off immediately after hardening to give the effect of being worn by the centuries.

Thousands of Tampans and tourists crowded into the offices when they were opened on October 30th. Mayor Perry G. Wall expressed the amazement of himself and the thanks of the community. It was the second time within one week, he pointed out, that Prettyman had done something big and unusual for Tampa. He had reference to the donation by Prettyman of a \$100,000 tract near Oldsmar to be used by the city of Tampa as a municipal park and golf course.

Oldsmar, which is hopeful of attaining by 1925 the status of a city of 25,000 population, is pushing a vigorous construction program. It has just completed or has in process of construction or is about to begin, an 18-hole golf course fronting on Oldsmar Bay, a new Casino with accommodations for theatricals, lectures, motion pictures and dancing, a 1,000 foot fishing pier, a magnificent yacht basin, a church in stucco style with a seating capacity of 300, a Women's Club, paved boulevards, municipal parks and street parkways, arches and street gateways, etc.

Citrus growing on an enlarged scale and increased plantings of bananas marked the advent of new settlers in Oldsmar this season. A. J. Pechin's success as a vegetable grower has had the effect of inducing others to take up truck gardening at Oldsmar. Mr. Pechin's first adventure in farming was four years ago. Last season, at the South Florida Fair he took eleven out of twelve blue ribbons.

William E. Bolles, secretary of the Florida Banana Growers Association and an authority in that field, is urging extension of banana planting at Oldsmar, saying he expects this year to obtain a profit of \$1,000 an acre from the 80 acres he has cultivated. He began at Oldsmar seven years ago with 16 plants and now has 40,000.

Lindley Heimbarger, director of the

THE CITRUS INDUSTRY

Agricultural Service Bureau at Oldsmar and an expert of 35 years experience in Florida has completed tests of Oldsmar soils and pronounces them easily adaptable to many growing purposes.

THE BANANA GROWERS CONVENTION

Continued from page 22

ness in this state. If we will safely guard these two points, we will have the whole North American continent as our customer."

Gordon Bryan, a member of the Association, who operates a plantation in Nicaragua, says the tropical banana planters, if they modify their methods, are likely to adopt a modified form of the intensive system followed in Florida.

John B. Beach said in his paper, which was read by Mr. Bolles: "Be sure you plant no bananas which have not been given a clean bill of health by our State Plant Board. This will protect us from the more serious tropical diseases which have wrought such destruction in the banana-growing countries south of us, as to reduce the annual supply imported into this country by the United Fruit Co. from 60,000,000 to 40,000,000 bunches. So long as we observe due caution and co-operate with the State and Government authorities in the enforcement of a rigid quarantine against our foreign neighbors, we never need know what these foreign diseases are like. We need never bother our heads about them."

W. J. Kirkwood read a long and very able paper on "What Shall Our Banana Harvests Mean to Florida's Future?" He said: "Freeze the tree-tops in my orange grove and it will take me three to five years to recover that grove; but freeze down my banana trees this winter to the ground, and I will hand you ripe fruit from these same plant stools by next September or October. Nature sends her frost in mild degrees to bless this land and eliminate the greater pest life of the tropics. Florida has arrived at the door of opportunity for another great wealth-producing industry."

P. M. Shanbarger told about the merits of the Ladyfinger banana. "They sell in markets already glutted by foreign kinds. The Ladyfinger, having more acid in the fruit, will stand for more acid in the soil."

Frank Whitman recommended growing quality fruit. "We are not experimenting. We know what varieties to grow. There are just a few

varieties of bananas commercially important to Florida, while there are 160 varieties of oranges, and we could get along with 6." He said there is no limit to the possibilities with such a food-fruit as the banana. We can beat the importing companies by making quality our slogan.

Lakeland was chosen as the next place of meeting, February 13, 1925. Anyone desiring further information can write Secretary W. E. Bolles, Oldsmar, Florida.

GRAPEFRUIT TREES BOUGHT BY ITALIAN

How the fame of Florida grapefruit is spreading through foreign countries is pointedly told on the front page of The Miami Herald of October 28, in the following language:

The last chapter in a correspondence extending from August 15, and including in its scope Naples, Paris and Miami, was received at the Miami Chamber of Commerce yesterday. Last summer, the Paris edition of the New York Herald printed a communication from a "constant reader" regarding the growing of grapefruit in Naples.

On August 15, the Paris edition, through "I. E. L.," volunteered the information that Florida grapefruit were the finest grown, and the Blue Goose the best variety. "I. E. L." also declared that the sandy loam soil of Naples would be well adapted to growing grapefruit, and advised that "Constant Reader" send a \$10 bank draft on a New York City bank payable to the secretary of the Miami Chamber of Commerce.

Yesterday Clemente Vocino, of Napoli, identified as "Constant Reader," sent the draft to Secretary Fred L. Weede, asking that he turn it over to a local nurseryman and that the young grapefruit trees be sent to him for December planting.

VALLEY FIGHTS FRUIT SCALE

Pending action of State and federal authorities on the Valley's request for a ban on insect-laden fruit from other States, members of the Valley Horticultural society are conducting a campaign to induce purchasers of California oranges to destroy peelings in order that scale be kept from Valley trees.

Nature's best tonics: garden vegetables and orchard fruits.

In writing to advertisers, please mention The Citrus Industry.

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Profits come from quality. Quality products should be the aim of every grower in the state.

And quality fruit or truck depends upon the right kind of fertilizer more than any other single factor.

Our large organization and buying power enable us to get the best ingredients for making fertilizer. GULF BRANDS are always dependable.

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We Have Convinced the Most Skeptical of the Need of Proper Propagation by the Results Obtained in Our Own Groves

The value of our improved method of propagation applied to OCKLAWAHA NURSERIES TREES has been the means of securing for us the business of the most careful fruit growers for many years past.

An investigation of what we are doing will certainly lead you to place your orders with us for trees.

This is to your benefit, because you can cultivate, fertilize, and otherwise take care of your young grove with full confidence that the choice of OCKLAWAHA NURSERIES TREES will amply justify the results of your patience and labor.

When the product of your grove reaches 400 boxes to the acre, we bespeak an income of from 50% to 100% more per acre for your fruit—because OCKLAWAHA NURSERIES TREES are used—than you would receive if you used trees propagated in the ordinary way.

Write for our "BOOK OF TRUTH" for planters of new groves.

Ocklawaha Nurseries, Inc.

Pedigreed Citrus Trees.

Phone Victoria
through Orlando

LAKE JEM,
FLORIDA

Telegraph
Zellwood

A West Coast Developer

Among the self-made men the lower Gulf Coast of Florida has produced is the well known president of the Florida Horticultural Society, Mr. L. B. Skinner. He arrived in Pinellas county back in 1883 when that county was part of Hillsborough. He had scraped up the modest sum of nine hundred dollars and plunged in with all of his restless energy to carve out a fortune in this land of opportunity. Picture the outlook in Pinellas Peninsula back in '83. No railroad—only transportation a boat from Cedar Key and once a week mail from Tampa carried over the deep rutted roads by horse and buggy.

About five families had settled at that time in the section that was to become the site of the beautiful city of Dunedin on sparkling Clearwater Bay. Two original settlers of sturdy Scotch, John Douglas and Jim Somerville, had arrived on the site of Dunedin after the Civil War and had planted the rich soil to cotton. A spacious pioneer home, barns, cotton gin, negro quarters soon made the land yield its best as a cotton plantation.

When citrus fruit trees became the rage, Messrs. Douglas and Somerville planted a young citrus grove. Thus was this rich tract of land farmed from the later sixties to the arrival of L. B. Skinner.

Mr. Skinner bought the property when old age crept on these original settlers. All the money that Mr. Skinner could raise and scrape together was used in the first year or so of his venture. The tide turned against young Skinner soon after, and his savings were wiped out in a year, but with the courage that comes to men of his type, he just rolled up his sleeves and took another toe-hold.



L. B. SKINNER

Little by little he mastered difficulties that would have staggered a weaker member of the male sex. His young grove began to grow and the yield of fruit showed better returns each year.

The practical mind of Mr. Skinner, after he had conquered the land, would not rest and he saw with a clear vision the need for a manufacturing plant to supply the citrus industry of Florida with machinery adapted to marketing fruit to the highest advantage. He is the inventor of many patents in fruit machinery and the products of his factory today are to be found in fruit sections all over the world.

Mr. Skinner has gradually retired from active participation in the Skinner Machinery Company, and the business is now in the hands of his very

capable sons, who are building a greater manufacturing business for the future.

Aside from Mr. Skinner's large grove interests, a few of the honors conferred on him may be mentioned as follows: He is President of the People's Bank in Clearwater, President of the Clearwater Island Bridge Company and owns the major acreage on Clearwater Island Beach, also owns Blind Key Island, President of L. B. Skinner Company, Vice-President of Skinner Machinery Co., President of Hillsboro Hotel Company, Tampa, Florida, President of the Florida Horticultural Association with over 2,000 members, and President of the Florida Growers and Shippers League, made up of the combined truckers and citrus shippers of Florida. He is also the commodore of the Dunedin Yacht Club, and donated to the town of Dunedin its athletic field.

Mr. Skinner has four children, three sons and one daughter, who has a national reputation in charitable and social economy work. Miss Skinner is loved by all, having a following in Florida that is legion.

Mr. Skinner has visualized the future of Florida's most beautiful setting for a great tourist and commercial city—Dunedin—and has gathered a staff of experienced planners who have spent months preparing plats and plans for the new subdivision to be known as "Grove Terrace," a few minutes' walk or drive from Dunedin's waterfront on Clearwater Bay in the midst of the state's finest orange groves. Lots, size 60x150, each containing 15 citrus trees, will be staked off facing three beautiful boulevards in Dunedin, on Scotland, Vir-

Continued on page 32

DUNEDIN

Is undoubtedly one of the Best Real Estate
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Is its finest Restricted Residential Section

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Main Office—416 Cleveland St.

Clearwater, Florida

Or see any Dunedin Real Estate Broker

The Story of Dunedin, Fla.

An Aeroplane View of Dunedin, Florida



Flint, Mich., Nov. 1, 1924.

Dear Harvey,
Tampa, Florida.

I received your letter that you sent me dated Oct. 3rd, and have been busy getting my affairs in shape so that I can get away early this winter for my annual trip to Florida. Politics is the talk of my town and I have been asked to stay over and vote next Tuesday; guess I will.

By the way, I want you to do me a favor, Harvey, if it is not too much trouble. A neighbor of mine is in Clearwater, Florida, and he has been scouting around the Tampa Bay section. He says this summer fortunes have been made by the wise investors in a lot of the Gulf Coast towns from Tarpon Springs to St. Petersburg in

Pinellas county. He tells me he has been snooping around a beautiful town called Dunedin which he says is three miles north of Clearwater and he has inside information that the property in this town is due for a big advance in value.

Harvey, if you can get off for a day, slip over to Dunedin and give me the information of the lay of the town there. Answer this letter as soon as you get back to Tampa.

Helen sends her best regards and Will asked also to be remembered.

With kindest regards I remain,
Your old friend,

Henry Sturgis.

P. S.—If you see any bargains that call for action put down some money to bind the deal, as I will be in Tam-

pa about Nov. 9th, or wire me if you need me sooner.

Tampa, Florida, Nov. 5, 1924.

Dear Henry,

Flint, Mich.

Got your letter of Nov. 1st, and caught the first bus for Clearwater and Dunedin at 8 A. M. This was my first visit by road to Dunedin through the beautiful scenic highway in Pinellas county with its rolling hills, the road running for miles bordered on each side by the best orange and grapefruit groves that I have seen in all of Florida.

Arriving first in Clearwater I found by inquiring around that the boom has hit this pretty town, and subdivisions have been sold out in a day,

Twenty-eight

the last sale of lots the other day totaled \$180,000 in eight hours. This property not so long ago could have been bought dirt cheap. Henry you will never regret coming to this section of Florida. Today when I rolled into Clearwater and strolled down the main street to the pier running out in Clearwater Bay, which the town faces, I cannot describe the beauty of this scene. Clearwater is a smart-looking city of about six or seven thousand inhabitants and has every modern advantage in the business section that you would find in a well-ordered town up north. Coming back from the bay I ran into a traveling man who was going to Dunedin and suggested that I ride with him. Well I was glad of the opportunity, and as he has traveled this section for years I got the facts about Dunedin straight. To start with, as we left Clearwater with its well paved streets and pretty homes we had but a short drive north before we hit Dunedin. The road runs along Clearwater Bay, as pretty a stretch of emerald sea as you would want to view.

When we arrived in Dunedin the first thing I noticed was a modern tourist hotel going up in a subdivision called "Fernway." The hotel will contain 106 guest rooms—some

THE CITRUS INDUSTRY

hotel for a starter. We passed several hotels along the front of Dunedin facing Clearwater Bay. Arriving in the business part of town I bid my traveling friend good-bye and thanked him for the ride over.

Henry, I have known you many years and what I am about to tell you goes as facts. This town of Dunedin is one of the most charming spots I ever have had the pleasure of dropping into.

The nucleus of a large tourist town is in the making, the streets are well paved, they have electric lights, modern sewerage system, gas will be installed in a few months and the water is the best drinking water in Florida.

They have a good school, four churches, a live Board of Trade, newspaper, public library, women's club, yacht club, fraternal lodges and a business men's luncheon club—athletic field and municipal playground—and last but not least the Skinner Machinery Company, vegetable packing machinery, a cigar factory, box factory, ice plant, printing plant, Anderson Band Saw Company, a citrus packing house shipping thousands of boxes of fruit yearly from the rich groves surrounding the city, modern bakery, good retail stores covering

all lines of merchandise with room for several more. These industries assure a year-round pay-roll.

I visited several of the real estate offices and I never met a set of men who were more modest and lacked that high pressure method that so many realtors have in other boom towns. It was refreshing to find fellows who in a straight-forward way told simple facts which were backed up later by information that I obtained from disinterested parties.

What one of these realtors said to me:

"The so-called 'Boom' has not struck Dunedin, for there is not the activity in land transfers, and prices have not been inflated to such a degree that a person of ordinary means cannot secure a home site. There has been a steady growth each year and the past twelve months has seen more building than ever before.

"The city has just voted over \$100,000 to pave the side streets which will open up delightful lots for residential purposes. There is much activity just at present that will add greatly to Dunedin's advantages, among which is the extending of the city limits along the bay front, the extension of Main Street and the road and bridge district which will open

"Where the Gulf Stream Originates"

Beautiful Dunedin, Florida

The Sub-tropical Suburban Subdivision

Grove Terrace

WILL OPEN EARLY IN JANUARY

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Every modern city convenience included

**Ideal High
and Dry
Home Sites**

**Few Minutes Walk
From Beautiful
Clearwater Bay**

Grove Terrace Grant & Skinner

Dunedin, Florida

Sales Agents

up a network of new highways to this city."

These fellows are not aware that some big things are going to break for Dunedin and I am surprised that they have not caught on to it yet.

There are three subdivisions about to go on the market, "Belle Terre," which is being sold by E. A. Marshall and Son; "Grove Terrace," which will eventually cover several hundred acres. This is the property of L. B. Skinner, and the other subdivision is called "Fernway." All of these subdivisions are of the highest order.

The question in your letter was the

THE CITRUS INDUSTRY

property priced right. I covered miles today around Dunedin, asked questions of people living around here in all walks of life. To tell you the truth, Henry, it reminds me when Julia, my wife, asked me to buy an antique she had spied in an old shop in New Orleans. I bought it at six dollars and a half. My wife found the match to this antique weeks before and it cost me four hundred and fifty dollars. I felt the same about prices on property in Dunedin. These people have no conception how cheap they are holding their property in a city that has it all over any resort section in Florida. The prices they get in other tourist towns are reaching into big figures, so I would advise you to pack at once and look over the situation locally, as soon as you arrive here. And further I advise you not to tarry too long because real estate activity is so great at this writing the minute these big operators get in Dunedin values are naturally going to rise rapidly. I have seen it so often when most Florida towns get a good start.

I have spied out the land for you, Henry. The price of land around Dunedin is so undervalued I am ashamed to quote same in this letter. I will leave that to your well known trading ability when you arrive. Oh, I forgot, this will be told around the city soon, a young fellow told me at lunch today he was induced to buy a lot in Dunedin. He did not have much money at the time and put up a hundred dollars until they could get the abstract out. Five weeks after he put up this small sum he showed me his bank deposit book. He sold out for \$14,500. Pretty good profit on a hundred dollars option?

These stories may get out, so once more I advise you to start at once for Dunedin. There is still considerable acreage that you can obtain at very low prices.

Twenty-nine

Wire me if you have anything important in the mean time you wish me to attend to.

Yours sincerely,

Henry.

P. S.—The Atlantic Coast Line railroad comes direct to Dunedin via Tampa. Buy your tickets over this line. H.

The successful stockman must weed, feed and breed, and keep everlastingly at it.

In writing to advertisers, please mention The Citrus Industry.

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On the Heights of Dunedin

The New Citrus Aphid

Abstracts of Talks Made Before County Agents, September 25, 1924, Gainesville, Florida, by J. R. Watson and A. H. Beyer

In the spring of 1923 this department first began to receive numerous requests for aid in fighting an unusual outbreak of aphids in Hillsborough and Pinellas counties. At the time this was thought to be merely an unusual outbreak of the melon aphid which would soon subside, and except for sending out directions for combating the pest no particular attention was given the matter.

The outbreak apparently died down in the summer of 1923 but was renewed in the fall, and in the spring of 1924, as we all know, it became so serious that the junior writer went down into Polk county to investigate the outbreak in person. He at once recognized that the aphid was not the melon aphid, but was unable to identify it. There is no doubt but what the insect responsible for the outbreak in 1923 was this new citrus aphid. It has probably been in Florida for several years in small numbers. Indeed, Mr. Jeffries, the superintendent of the citrus sub-station at Lake Alfred, is very positive that he saw the curled leaves characteristic of this insect in Pinellas county as early as 1921.

At the present time the aphids are few in numbers and are doing very little damage to citrus, but they are to be found in practically all citrus groves of the state except perhaps the few in Putnam county from which the aphid has not yet been reported. Naturally the question now uppermost in our minds is, "Will it return?" In other words, is the present slump in numbers a permanent one, or is it a seasonal one? Unfortunately no one is able to give a positive answer to this question. We can only cite some evidence bearing on the question. In the first place it died down last summer just as it has this summer. The decrease in numbers this summer has been largely due to a fungous disease which has been identified by the Department of Pathology as a species of *Entomophthora*, probably an undescribed species. Probably it was this same fungus that controlled it last summer also.

The species has been identified by members of the Bureau of Entomology as *Aphis spiraeicola* Patch, an aphid which is more or less widespread throughout the northern states on spiraea, a genus which includes, among others, the common bridal wreath.

Miss Patch, who described the species, is now of the opinion that it is identical with *Aphis pomi*. This is an aphid more or less widespread through the north on apples, which occasionally gets abundant enough to be quite a serious pest. In this connection it is interesting to note that the aphid was found on apple here at the Station grounds at Gainesville ten years ago, and that Dr. Berger, of the State Plant Board, found it on *Crataegus*, or haw, a closely related plant. The aphids taken from citrus on the Station grounds this summer were readily transferred to apple, and the few found on apple and sand pear were just as readily transferred to citrus. It would seem that Miss Patch is probably right and that the two are the same. However, the Station is planning to raise several generations on apple and on citrus respectively, and see if we can find any differences in those raised on the different host plants.

Unfortunately the identification does not clear up the origin of the outbreak. How did this aphid happen to

become a major pest of citrus all at once? In other words, why did it drop down on our industry "out of the blue?" There are three plausible explanations. First, it has been on citrus, perhaps unnoticed, for a good many years, and the present outbreak was due to unusual climatic conditions. This is the view taken by several students of the insect. Second, it has but just found our citrus. Third, it has recently developed a strain which took to citrus. Though possibly but little better than a guess, the authors are inclined to the opinion that the third possibility is more probable. It very definitely spread from a center on the west coast from which only this year it has spread over the entire citrus belt. If it were a pest that we have had with us for many years on citrus, why did it not break out over the entire state at the same time instead of spreading from one center? Furthermore, if the outbreak were due to unusual climatic conditions one would expect other aphids to have been more abundant also which was not the case. The melon aphid was scarcer last spring than in many years, in the writer's experience. That insects do develop strains that take to new host plants is well known. The wooly white fly is probably an example of this. It has been found for many years in Florida on sea grapes, but not until the early part of this century was it known to attack citrus.

If the outbreak is due to the undoubtedly unusual weather conditions of the past two seasons, we may confidently expect that we have seen the worst of the infestation, but if either the second or third hypothesis is the correct one, we should be on our guard against the return of the aphid in the fall and particularly in the spring.

In our studies of this insect it has been found that climatic conditions have a marked influence on its length of life and mortality. During warm, dry weather there is a much more numerous progeny than in cool, wet weather.

There are two types of females which reproduce, the winged or alate viviparous female, and the wingless or apterous viviparous female. Thus far reproduction has been found to range from 8 to 61 young per female. The birth rate was highest during the early part of the life of the female.



Citrus tree showing effects of aphid infestation

and the most young were produced during the morning hours. These females have been found thus far to reproduce generation after generation without being fertilized.

The young have five stages, or instars and four molting periods. These stages range from 20 to 36 hours. The range of life of the nymph is from 5 to 11 days. The period of birth is on an average about two and a half minutes. And the period of molting, or shedding of the skin, is about ten minutes.

The females give birth to living young. In the northern states aphids spend the winter in the egg stage, but in Florida at least most species are active all winter, and so far as the junior writer's experience with this species is concerned, the indications are that there is no egg stage produced in this latitude. They pass the winter in the adult or the nymph stage, and under warm favorable conditions continue to breed throughout the winter.

The dispersion, or spread of the species, is found to be due almost entirely to the flight of the winged adults. There is no evidence that conveyance on vehicles has been a factor of any importance in their spread.

In the field citrus has been found to be the most commonly infested plant, particularly certain varieties of the mandarin family. The seriousness of infestation occurring on different varieties is shown in the following order: Cleopatra tangerine, King orange, Temple orange, tangerine, pineapple orange, Valencia, and grapefruit. In the field this species was also found on loquat, wild plum, sand pear, haw, apple, and spirea, and in the laboratory we have been successful in breeding it on nightshade, Jerusalem oak, milkweed, dogfennel, and cudweed, and also on the garden plants peppers and lettuce. Our most successful experiments in the laboratory, however, have been conducted on Spirea Van Houttei, commonly known as bridal wreath.

The method of attack of this aphid is unlike that of any species heretofore found on citrus. It not only attacks the young, tender, succulent growth, by sucking the sap through its proboscis, but it also attacks the blossoms, calyx and young fruit. The method of its attack on the foliage is also characteristic in that it shows a tendency to attack the midrib and its branches. Consequently a single individual is sufficient to cut off the source of food supply of a leaf, causing it to immediately curl at the point of attack, and become crinkled and like a corkscrew in appearance. Cross sections of these leaves show many

of the cells to be broken down. The injury to the blossoms causes a large percentage of them to fall, while a double injury is inflicted on the fruit. In the first place, the rind where it is punctured by the beak of the insect develops little raised places, or knobs, which cause it to lose the smoothness of healthy, uninjured fruit. Also, when punctured near the stem end, much of the fruit falls even several weeks after the outbreak of the infestation.

Five groups of beneficial insects have been found to be of importance in controlling the aphid, in the following order: First in importance is the family Coccinellidae, or lady beetles, of which the following species were noted: The Twelve Spotted, *Hippodamia convergens*, the Blood Red, *Cyclomeda sanguinea*, the Twice-Stabbed *Chilichorus bivulnerus*, and the small dark beetle probably of the *Scymnus* genus. Next in importance were the syrphus fly larvae, of which two species have thus far been found. Third, the Green Lace Wing, genus *Chrysopa*; fourth, the larva of a two-winged fly *Diplazon laetatorius*, and fifth, a small brownish beetle, *Cyphon perplexus*. Among the fungous diseases effective in controlling the insect during the rainy season has been the *Entomophthera* mentioned above.

The most important enemy in keeping down the melon aphid is a small wasp-like insect which lays its egg in the aphid. The larva hatching from this egg feeds on the internal organs of the aphid, causes it to swell until it is almost spherical, and die. The grub then transforms into the wasp-like adult, which gnaws a circular hole in the top of the dead aphid, through which it escapes. This parasite does not seem to be able to develop in the new aphid, perhaps because it is too small. It has been observed to lay eggs in the new aphid, but never to emerge. In a colony of the new aphids swollen individuals are frequently to be found. If these are dissected a grub is often found inside. If the aphid is alive the grub is usually also alive, but in dead aphids the

grub too is usually dead.

Artificial control measures effective in controlling the aphid may be listed under three heads, spraying, dusting and fumigation.

Spraying with nicotine sulphate at the rate of 1 to 800 was quite successful where the spray was applied before the infestation had curled and crinkled the leaves. The spray is effective if it comes in contact with the pest by reaching both sides of the leaves. Oil emulsion sprays were also successful where thoroughly applied, with the advantage of a minimum expense compared with nicotine sulphate. It is necessary to use the oil emulsion spray almost as strong as that used for scale or whitefly larvae.

The most practical means of control, after leaves have been curled, seemed to be by the use of nicotine dusts of at least a three per cent strength. Where these dusts are home-mixed the expense is reduced about one-half. The three per cent mixture can be successfully made as follows: Take 100 pounds of hydrated lime (be sure that it is thoroughly dry), and add seven and a half pounds of 40 per cent nicotine sulphate. This should be placed in a fifty-gallon barrel, which may be arranged like an old-fashioned churn, and thoroughly mixed.

In large, bearing groves, heavily infested, it is advisable to use a power duster, and dusters are adapted for small groves and are especially good for spot dusting in large groves where the infestation is scattered.

Very good success has been obtained by fumigating small trees with calcium cyanide (Citrus A dust being used) under tents. About an ounce of the dust is required for each foot in the height of the tree. The junior writer found in his experiments that with the use of six tents and the aid of two men, one acre per hour could be fumigated. Calcium cyanide dust was also used in the open with very good results when the wind was not blowing.

FLORIDA

Young Citrus Groves at Attractive Prices

- One 5 acre Grapefruit Grove
- One 10 acre Tangerine Grove
- One 20 acre Orange Grove
- One 20 Acre Tangerine Grove
- One 30 acre Grapefruit and Orange Grove
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One improved 160 acre tract ready for profitable sub-division grape growing, ferns, bulbs and other specialties. A fine colonization opportunity.

All trees in these groves are pedigreed stock, and in fine condition. In a short time will yield big return on investment. For full particulars, please address the owner, Fred B. Burt, DeLeon Springs, Florida.

Little Green Fruit Shipped Says Skelly

F. L. Skelly, manager of the American Fruit Growers, Inc., Orlando, does not agree with the opinion that the recent decline in the grapefruit market is chargeable principally to the shipment of immature fruit. When asked for his views on this subject, as a result of opinions to such effect expressed in some recent news items, Mr. Skelly replied:

"I have seen some recent statements to that apparent effect but we believe that such view is erroneous and its expression is not advisable, particularly if it be in fact erroneous.

"It is our belief that on the whole a very small quantity of green and immature grapefruit has gone forward this season. Hon. Nathan Mayo, commissioner of agriculture, has shown splendid zeal for the good of the citrus industry and from the beginning has given a great deal of his time, personal attention and personal effort to this matter. His own efforts, ably supplemented by both state and federal inspectors under his direction, have kept a very close watch on shipments and the fruit going out has, in general, been as good as could have been expected, both as to maturity and color.

"It is our belief also that a great majority of the growers and shippers have endeavored in good faith to cooperate fully with the commissioner to these ends. It is true that some grapefruit has been shipped on the color test alone; that is, on the basis of over 50 per cent color, regardless of the acid test. We feel that shippers who pack fruit that is only 50 to 60 per cent colored, and without regard to anything else, make a serious mistake, as neither dealers nor consumers desire that kind of fruit.

"On the whole, however, a very small percentage of what is generally understood as green grapefruit has gone out of the state and in our opinion, the decline in prices has been caused primarily by the heavy volume of grapefruit shipments, rather than inferiority in the fruit itself. The trade does not seem to be ready or able to absorb at present the amount of fruit that has been going forward during the past week at the high prices that were received in the early shipments, when the fruit was going out only in moderate quantities. As a result, and as can always be anticipated under such circumstances,

it is only the exceptionally fine, well packed and palatable fruit that will bring any premium in prices, and such is true even at the present time.

"If the growers and shippers of this state will use good judgment in shipping only good, palatable grapefruit in moderate quantities, that is, in such quantities only as the markets are able readily to absorb, it can be handled at satisfactory prices. One need not expect that miracles can be performed after the fruit reaches the diverting point, and if shippers do not adhere largely to the principle of selling their fruit on an f. o. b. basis before it reaches the diverting point, then they will have to cut down the shipments so that it will not have to be tramped around to the markets to find sale.

"Our own organization has not changed its policy in any way this season. We are not willing that any fruit should go out under our Blue Goose trade name or any of our brands that does not measure up to the required standard. In addition to this it must be palatable and show the proper degree of color to appeal to the consumer.

"There is, and has been entirely too much talk about green fruit shipments. Such public discussions are inevitably spread all over the United States through the press and constitute the most undesirable publicity imaginable from the standpoint of marketing Florida products, necessarily creating in the minds of the trade a prejudice and an atmosphere of uncertainty about all the fruit shipped, whether in fact good or bad, with its consequent reactions on the market value.

"A great many growers and shippers seem to show a lack of confidence and endeavor to give a reason when conditions do not come up to their expectations. Let us all confine our talk to boosting the fine quality of Florida oranges and grapefruit. I do not know of any industry that is receiving the knocks within its ranks that are being received by the Florida citrus industry as a whole.

"What shippers ought to do, and what we believe they are in the main sincerely striving to do, is to see to it that they do not work any deception on the consuming public and ship only fruit that is good to eat.

Beyond that, whatever publicity is given the matter should be directed toward establishing confidence on the part of both the public and the trade by a truthful presentation of the efforts that have been made to insure against such deception, both by the state and federal authorities, and the sincere co-operation of the growers and shippers themselves."

PLANT QUARANTINE INSPECTOR.

An examination for plant quarantine inspector will be held throughout the country on December 10. It is to fill vacancies in the Federal Horticultural Board, Department of Agriculture, at an entrance salary of \$1,860 a year. Advancement in pay may be made without change in assignment up to \$2,400 a year.

The duties of the position are to assist in the enforcement of the various quarantine and regulatory orders issued under the plant quarantine act of August 20, 1912.

Competitors will be rated on either entomology or plant pathology, practical questions in plant-inspection work, and education and experience.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. civil-service examiners at the postoffice or custom house in any city.

A WEST COAST DEVELOPER

Continued from page 26
ginia and Wood Avenues.

The main entrance to this gorgeous tropical subdivision, "Grove Terrace," faces on Milwaukee Avenue, one of Dunedin's most prominent north and south thoroughfares.

Announcement will be made in the press of the opening and pre-introductory prices will prevail in December before the property goes on the market, which will be about January 15th. Many inquiries have already been made as to the opening date. This subdivision will have every modern improvement.

Information on Grove Terrace subdivision can be obtained of Mr. L. B. Skinner at his main office in Dunedin or any realtor in Dunedin, Florida, Pinellas County.

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A Monthly Magazine devoted to diversifi-
cation in fruit growing and to home and
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The kind of a magazine you will enjoy in
your home. It tells of the different kinds
of fruits which can be successfully grown
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Bartow, Fla.

Improve Appearance and Quality of Fruit

By J. G. Grossenbacher at Fruit Growers' Luncheon, Winter Haven, Fla., Oct. 8

Just as it is in any line of business, the expression that there's always room at the top also applies to the growing of citrus fruits. Even though prices are all shot to pieces, fruit of extra fine quality always commands the top price. The two ideas that need the attention of citrus growers are the production of the highest quality and to getting it before the largest possible number of consumers in an attractive and economical way. The best interests of the ultimate consumer must be safeguarded in every way if the citrus industry is to continue successful.

The appearance of the fruit must be attractive and its eating and keeping qualities should be of the best. The rind of the fruit must be free of blemish, and the juice both abundant and of the highest quality. The matter of appearance of fruit has had most attention and still needs more.

Ammoniation, melanose, scab and rust are still more prominent in many groves than they should be. These troubles are preventable. Sunscald and wind-chafing also influence the appearance of the fruit, but up to this time no practical preventive is available.

In order that your fruit makes a real showing it must be free of rust, scab, melanose and ammoniation. It takes two or three sprayings or dustings per summer to prevent rust. The time for application comes from May to August. The cost is usually from 15 to 30 cents per tree for the season, depending upon the size of the trees, number of doses given and what is used. Scab and melanose can usually be prevented by one or two applications of spray. On grapefruit use lime-sulphur solution 1 to 40 for scab when the bloom is nearly all shed and in about ten days or two weeks follow with Bordeaux-oil in cases where scab is very bad or where melanose is fairly abundant, otherwise omit the Bordeaux-oil. In orange groves severely affected by melanose Bordeaux-oil should be used during the latter half of April or early May. The cost of the Bordeaux-oil application runs from 6 to 20 cents per tree depending on the sizes and whether the Bordeaux-oil was made in the sprayer or bought ready-mixed.

The last item of consequence af-

fecting the appearance of fruit that is preventable is ammoniation. This is a disease often called die-back. It is especially common on oranges. The greatest loss from this trouble consists of splitting and dropping of fruit. Often only a small percentage of the crop carried to late summer remains on trees until picking time. The split and severely ammoniated fruit drops off and rots. Much of the crop remaining on trees has blemished rinds and is therefore of low grade. An equally bad feature of fruit from an ammoniated grove is the fact that the eating and keeping quality is extremely low. Even though your trees may hold most of the crop to picking time, giving you a satisfactory volume, your profits are cut, owing to the low grade it makes. Often such fruit proves a serious loss from decay in transit to market. I have known cases of 60 per cent decay occurring in cars of fruit from ammoniated groves.

The most practical treatment for this trouble consists in applying blue-stone to the soil, spread on like fertilizer in late fall or early winter. The dose for bearing trees is from 2 to 6 pounds, depending on their size. The one treatment is usually sufficient if enough is given. The cost of making this treatment generally runs from 15 cents to 45 cents per tree. The application made in fall prevents the development of ammoniation on the next crop set and at the same time probably increases the per tree yield enough to pay for the treatment.

In going back over these items that affect the appearance of the fruit and are at the same time preventable, we find that your total cost for average sized trees is around 65 cents a tree. That is assuming that you made the expenditure for melanose control and made the treatment for ammoniation or die-back. As a matter of fact, only a small percentage of the groves are affected by melanose. The actual damage from melanose is only a fraction of the loss sustained annually by growers from die-back or ammoniation. As a general preventive I would suggest growers insist upon getting more organic materials in the fertilizers or else use occasional doses of stable manure on groves. We do not know all the causes of this disease,

but we do know that large quantities of chemical or inorganic ammonia will produce the disease.

In addition to the cost of maintaining suitable living and growing conditions for your trees it might be assumed that the cost of keeping the fruit bright ranges from thirty cents to a dollar per tree, depending on their size and the number of troubles to combat. The spraying to control white flies and scale insects include under the head of providing suitable living and growing conditions. I am aware, of course, that an excessive development of scale also affects the appearance of fruit, but when suitable living conditions are provided scales are not that numerous.

In speaking of the quality of fruit, every grower knows that the mere outward appearance is only a part of the problem. The eating quality of fruit may be even more important than its outward appearance. In looking over sales reports of citrus fruit from various sections of the state this difference in its eating qualities are seen reflected in the prices obtained.

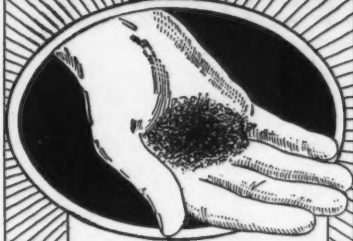
We have all had occasion to sample fruit from road-side trees that are never cultivated and found to our great surprise that the eating quality of such fruit is far superior to that taken from the most thoroughly cultivated groves. We also know that the fruit grown in low hammocks and flatwoods where very little cultivation is given not only is of the best quality but has smoother texture than that from an intensely cultivated grove. That is really where the so-called Indian River quality of fruit is grown.

Most of the growers of high-pine fruit having trees on rough lemon stock have come to the conclusion that they are not producing the best quality. They are inclined to attribute all their trouble to the stock on which their trees are budded. As a matter of fact, I know groves on that stock that are producing good quality fruit. Though I grant that it is easier to produce high grade fruit on sour stock than it is on rough lemon, I am convinced that the quality of the fruit commonly grown on rough lemon stock on high-pine land can be greatly improved by changing the methods

THE CITRUS INDUSTRY

Thirty-five

How Long Will Your Sprayer Last?



This much dust

Is more than enough to ruin some mighty good bearings not properly protected. Thanks to the perfect alignment, micrometer fit and protected housings of Hardie Sprayer mechanisms, dust cutting has always been at a minimum in Hardie Sprayers. But now comes Hardie with the very last word in protection against sand, dust and spray material—a

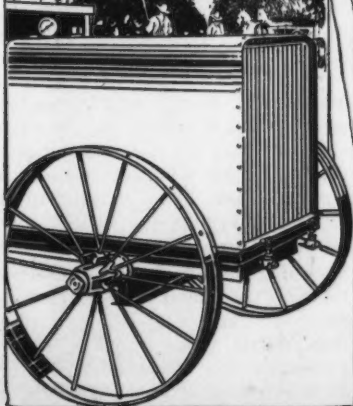
DUST-PROOF HOOD

In most sprayers such a hood would be ruinous, due to over-heating, but the Hardie system of cooling solves this problem. The water circulation system extends through pipes in the spray mixture tank. The amount of liquid spray is so great and it is replenished so often that overheating is prevented.

Other Hardie features should interest you also—the compact pump in which 90% wear is eliminated, the light weight Cushman engines, the low-down Auto-Plex trucks, and the new Hardie Gun which gives greater distance, wider spray and more even distribution. Write for catalog.

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HARDIE
DEPENDABLE
SPRAYERS



of handling such groves.

Since most of the cultivation given bearing groves is for the purpose of conserving moisture, it becomes evident that if we want to omit a large part of the cultivation we must supply water during dry periods of late April, early May, and the month of August if the fruit and foliage are to be maintained in normal abundance.

At a time like this, when our last crop has brought no real profit, it seems untimely to recommend the installation of irrigation systems, and I am willing to grant that in many cases such action would probably be unwise. However, there are many growers who are in position to go that, even under the present circumstances. According to my observation, trees 15 to 18 years old are large enough to use irrigation profitably, while those of less age can easily produce and grow normally without extra watering even though cultivation be cut to half or even less.

In regard to cultivation as related to the production of better quality fruit on the thinner high-pine land, I would suggest that in the first place the fertilizer be worked in thoroughly both ways and then allow considerable time to elapse before giving the next cultivation unless drought sets in. Merely stirring the surface with an acme harrow during a drought apparently does not influence the trees much, but does help to conserve moisture. As long as watering is impractical, surface culture must be used, at least through dry periods.

An occasional application of manure along with some attention to keeping a moderate supply of organic material in the commercial fertilizer used are valuable aids in building up the water-holding power of the soil. Cutting the cover crop also helps.

As an additional aid in holding the juice in fruit, a liberal use of nitrate of soda in fertilizers is also an advantage. The proportion of nitrate of soda to that of sulphate of ammonia to affect the matter of juice retention should probably be as about 2 to 1, i. e., two parts of nitrate of soda to one part of sulphate of ammonia.

It is an interesting fact that less cultivation, or allowing grass to grow in your grove, seems to reduce the development of rust mite. A decrease in cultivation will therefore save some on spraying costs. The fruit growers located on hammock lands have experienced this difference for years. Reduction in the use of the harrow means more frequent use of the mower to keep down the natural cover crops.

Continued on page 42

FARM LANDS FRUIT LANDS Now obtainable in small and large tracts in the Fertile Valley Section of Highlands County

This wonderful area often referred to as the Upper Everglades because it is of an elevation decidedly higher than anything on the south and east shores of great Okeechobee Lake is now being improved so fast with transportation and drainage that a short time ahead will see settlers coming into this garden spot of South Florida to develop it into an all around agricultural and horticultural enterprise of such consequence as to make everyone sit up and take notice. For months there has been large activity in this area by local people and a few outsiders but the interest is spreading so fast now that many are taking advantage of the opportunity to secure either small or large acreages at prices remarkably low compared to what they should be when the development is a few months to a year or so older.

The FERTILE VALLEY area, embracing many thousands of acres of muck and hammock lands, is unique among all similar soils because of its peculiar position just east and adjoining the Scenic Highlands of Highlands County and lying between Lakes Istokpoga and Okeechobee, where absolute drainage is possible and being provided for, and yet where irrigation can so easily be carried on in a dry season.

State Road No. 8 runs through the heart of the area giving first class transportation to the railroad a few miles west of the tract. It is altogether likely that a spur from the new railroad on the northeast of the tract will be built as soon as the production has reached a certain point, traversing at least 12 miles of the territory.

An agricultural town has already been laid out and plans made for its development to keep pace with the bringing of the extensive farm lands into cultivation, together with the unique proposition of combining a small farm acreage and some live stock with a homestead in town with a furnished house, so that the settler can come right in and go to work and make a living from the beginning. This townsite is on a high elevation of prairie and hammock land in the midst of the muck areas on either side thereof, and is laid out with generous sized lots, park sites and streets with a definite plan of beautification so as to make it a most attractive community center for the thousands who will come in to make this garden spot of South Florida flourish in the lines of trucking, general farming, stock raising and every kind of sub-tropical fruit raising.

For more detailed information concerning this development address

The Fertile Valley Land Co. Sebring, Florida

B. L. LAIRD, President
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C. W. ROGERS, Treasurer.

The Ounce of Prevention

By Paul W. Orchard

"An ounce of prevention is worth a pound of cure" is an old saying which holds good in citrus fruit growing by theory and accepted practice.

However Mr. J. G. Grossenbacher, himself an adherent of this theory and practice in relation to insect pests in groves, severely criticized an article appearing in September "Citrus Industry" in which the same rule was applied to fungus diseases in citrus trees.

The article as it appeared in "Citrus Industry" seemed to agree in the main with Mr. Grossenbacher's published theories and suggestions. That gentleman took exception to a casual mention of two copper sprays—Bordol a proprietary article and to bordeaux-oil spray, the predecessor of Bordol Mulsion and the reliance of many growers who for one reason or another prefer home mixed sprays to prepared articles.

Mr. Grossenbacher advocates fall spraying for insects and removal of white fly. Likewise he has demonstrated in years gone by the effectiveness of bluestone in fighting die-back and ammoniation of fruit. Though he has made no claims in that direction, many well informed people feel that he has also demonstrated that bluestone stimulates trees. Mr. Grossenbacher limited this work mainly to soil application of copper whereas experience seems to indicate better or at least equal results from bluestone and other copper salts in sprays.

If fall cleaning up of insect pests, their secretions and accompanying soot, is profitable by all logic and experience a similar treatment for fungus troubles is highly desirable. If soil application of Bordeaux or blue stone gives results a sprayed application ought also to be highly beneficial.

Little emphasis has been placed on fall use of copper sprays and much has been said against them. This situation has been the result more of theory than of practice. A few scattered growers have had the courage of their convictions and demonstrated the worth of Bordol and bordeaux oil in the fall. Most of these growers were forced to use these sprays because thorough pruning of fine dead wood over large acreage to prevent melanose breed-

ing was prohibitively expensive in cost, time and labor required.

Having used the copper spray in the fall and gotten surprisingly good results the method has been more widely applied at goodly profit.

Growers who could not prune as they wished sprayed with Bordol or bordeaux oil to destroy as much melanose and scab fungus as could be eliminated and to coat the breeding places of those fungi with copper to prevent their spread during any warm damp weather of winter and early spring. They argued that such a reduction of sources of possible infection reduced the work to be done by the accepted spring spraying for scab and melanose. The growers who first attempted this method did so with full expectation that a later spraying with oil emulsion alone might be necessary.

Contrary to expectations, scale and whitefly did not increase as anticipated and following no later oil spray was found desirable. Where good oil emulsions were used in making bordeaux oil and where copper used was not excessive, only rarely was the second spray with oil emulsion alone, desirable. Of course where poor oil emulsions entered into the bordeaux oil and where slovenly work was done insects did increase moderately though nothing like so much as theory predicted. Contrary to anticipations Whitefly and scale fungi were not completely destroyed as predicted.

As a second spraying with oil emulsion was not generally needed the use of Bordol and bordeaux oil in the fall was more costly than oil alone, only by the cost of the copper used.

The gain in quality of fruit the following season was sufficient to more than cover the cost of copper spraying and in most cases great enough to have covered two sprayings had they been needful.

For having destroyed or coated over the scab and melanose there was so much less of fungus present in the spring that scab spraying then was not so exacting, less solution did the work and less accurate work of coating was effective. At best a great deal of spraying is carelessly done and anything which will allow routine spraying to attain greater effectiveness is a vast benefit.

Aside from the gain in fungus control, the fall spraying with Bordol and Bordeaux oil seemed in all cases to stimulate trees and foliage so much that the bettered tree condition was worth the extra cost involved. Now tree and foliage betterment may be the result of eliminating unrecognized fungi or it may be due to assimilation of copper by trees—there is room for considerable research along these lines to account for the many benefits Mr. Grossenbacher and others have attributed to Bluestone.

Bordeaux oil was the fore runner of Bordol Mulsion the proprietary article, results from bordeaux oil lead to the research that finally produced Bordol. The proprietary article was patented after careful laboratory and field tests along lines suggested by bordeaux oil results.

The writer feels that the makers of Bordol have made a very decided contribution to better fruit growing in Florida and to simplifying spraying problems as well as to the economy of fruit raising for even admitting theoretical criticisms be true, still bordeaux oil and Bordol constitute vast economy over separate spraying with bordeaux followed by oil alone.

However there is nothing to indicate that Bordol is ultimately perfected or that sprays along the same line cannot be developed by other manufacturers. Therefore it would seem well to experiment with other forms of copper to develop the characteristics possessed by the proprietary article. That is, it would seem entirely possible to develop independently a copper spray which would destroy inimical fungus without any serious diminution of friendly entomogenous fungi, likewise possible to make a copper spray which like Bordol Mulsion will keep indefinitely until used. Also it ought, with different forms of copper, be quite possible to retain the insect killing powers of the oil emulsion un-diminished while still being thoroughly effective against fungi.

This is a vast field of research. Therefore it would be of more service to the citrus industry if more work was done along these lines rather than efforts being made to further perpetuate the theories which have so long prevented growers from reap-

ing the benefits of copper sprays in the fall.

As suggested in the original article the more adventurous growers with the courage of their convictions have found Bordol and Bordeaux oil as effective against whitefly and scale as oil emulsion alone. The flaking of whitefly soot following Bordol is more complete than the writer found with any emulsion alone. Possibly the reason for this better removal of soot may be that the copper actually attacks the soot and destroys it as it does other fungus growth. Or the better cleansing may be due to more perfect atomizing of Bordol than usually occurs in straight oil emulsions.

In adopting Bordol for his own fall use the writer preferred it to Bordeaux oil merely because of greater convenience and economy and if Bordol was not available he would use Bordeaux oil and begin experiments along the lines outlined. However so long as the Bordol is available and no more costly than the homemade formula would be in the long run there has been no need for him to go into the complexity of developing such a spray. And the amateur who starts any such research has a much harder task ahead than usually realized. From a cost basis by the time labor and waste of material and convenience are all figured Bordol seems actually cheaper than home made sprays.

As Bordol was ready to hand and proved adapted to his purpose the writer was spared this period of experimentation and so in adopting it for his own fall use and suggesting that others might profit thereby he speaks from a very considerable period of field work. And finally the profits and loss in actual practise are of more value to the man in the grove than the soundest of theory

which he must either prove or accept.

Boiled down the writer has had excellent insect and fungus control by using Bordol in the fall prior to the accepted spraying in the spring for scab and melanose. Results have been profitable and justify the practice on his own groves and the method will be continued. Fall use of copper spray is regarded as laying a sound foundation for the crop of the following year.

In times past the writer has been bothered by heavy dropping from what is generally called withertip and anthracnose—since using copper spray in the fall this has been virtually eliminated, he thinks the copper spraying did it though there isn't enough exact experimental data to prove the belief.

Likewise where Bordol or Bordeaux oil has been used in the fall, decay of fruit in transit to market has shown a very noticeable decrease even when that fruit is shipped with less sound fruit in the same car as

occasionally happens.

In his criticism of The Citrus Industry article Mr. Grossenbacher takes occasion to advocate Lime-sulphur solution for scab control. This method of scab spraying is certainly far more open to question in both theory and practice than the fall use of copper. The writer has seen such unsatisfactory results where lime-sulphur solution was relied on to control scab that he personally would rather rely on a fall spray with Bordol or Bordeaux oil to control this disease. However we do not propose to trust the fall copper spray alone for scab control.

In writing to advertisers, please mention The Citrus Industry.

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Orlando, Florida



Produce Paying Crops in Bad Seasons as Well as Good

By Geo. T. Tippin, Vero, Fla.

Knowing something of the success of the Vickers Brothers groves, and having some idea of their successful operations, I have been interested for some time to know more about how they have been able to develop such a valuable property in a few years. With this idea in mind I visited the Vickers Brothers groves and truck farm on the Dixie Highway between Wabasso and Sebastian, recently and had the good fortune to find two of the brothers at the farm. They very kindly showed me through their groves and told me of their operations since coming to Florida in 1907. There are three of the Vickers brothers, George F., Frank C. and Everett W., who are equal partners in all their farm and grove operations. They not only supervise the work but do a large part of it themselves.

In 1907 the Vickers brothers came from Georgia to St. Lucie county, locating about three miles south of Sebastian near the Indian River and began truck farming upon the land that is now in grove. This land is what is known as live oak and cabbage palm hammock and is considered among our best soils for both truck farming and citrus culture.

In 1907 and 1908 13 acres of this land was set to a grove of 1300 trees, 1050 grapefruit, 100 oranges and 150 tangerines, truck farming being carried on between the rows until the trees came into good bearing, which was in about five years, during which time clean level cultivation was practiced. In 1914 1,000 boxes of fruit was harvested, in 1915

2,400 boxes, the crop reaching 6,000 boxes in 1919 and has averaged around 7,000 boxes each year since coming to bearing age.

The fruit from this grove is real Indian River fruit of highest quality, and always commands a good price, whether sold at the grove or consigned, and I was told by the brothers that they attribute a part of their success in marketing to the careful handling as well as to the quality. I was told that in the most unfavorable seasons, by doing their own picking, making several different pickings when the fruit should be picked and putting no fruit in the box that should not go in, they had received very good prices and made money. The bearing grove is hoed or flat weeded once each year, is fertilized twice and is kept well pruned, also sprayed with power sprayers.

Good Equipment.

The farm is well equipped with good teams, tractors, sprayers and other farming implements up-to-date methods of culture in both grove and truck farming work being the practice. In 1917 an additional planting of seven acres was added, of which one-half is grapefruit and one-half oranges, and is in bearing this year, which will increase the number of boxes quite materially. In 1921 25 acres of heavily timbered pine land adjoining the old grove was cleared and put in a good state of cultivation that year, and in October, 1922, it was planted to grapefruit trees. The grove is also planted on the level, the same as the older groves, and the land between the rows used for truck farm-

ing, a crop of beans being followed by a crop of tomatoes last season. It is in a very high state of cultivation at the present time, and will be planted to beans at once and the bean crop will be followed by tomatoes.

Knowing something of the unfavorable results of the tomato crop last season, owing to the rust, I expressed my surprise when they told me that they would plant tomatoes again this season on the same land, to which they replied, that they made good money last season, clearing \$2,000 above expenses on the 25 acres. I asked how this was accomplished, and was told the nail head rust was not very bad in their crop, although sufficient to have prevented making any money had they not looked after and done their own picking and handling of the crop and seeing to it that no defective or injured tomatoes went to the packing house.

The last planting of 25 acres of grove is now about two years old and while planted on pine land, a better grown block of trees of their age cannot be found anywhere and it promises to develop into a fine grove property equal to the older groves which are among the best paying groves along the Indian River.

Profitable Tangerines

I failed to specially mention a block of tangerine trees in the older grove to which my attention was called when being shown through. I have never seen as large tangerine trees as these. They have a spread of 20 feet or more and are being

SANS SOUCI GROVES

Elfers, Florida

Growers of Sans Souci and Elf Brands
Of Oranges and Grapefruit

Knights Grove
Elfers, Florida
Sans Souci Brand
Trade Mark registered
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Breeders of Champion Orion and Sensation Strain
of Duroc Hogs and Jerseys

Knights Groves
Elfers, Florida
Elf Brand
Oranges and Grapefruit
JOE KNIGHT

THE CITRUS INDUSTRY

Thirty-nine

propped to keep the limbs from breaking. They expect to ship at least two car loads of fruit from this block of 160 trees this season, which means, conservatively estimated, at least \$2,000 per acre for the crop. There are now 45 acres of grove on the Vickers farm, fronting 2,000 feet on the new Dixie Highway, along which there is planted a row of Australian cedar which, while planted for a windbreak for the grove, also beautifies this stretch of the road and adds very much to the attractiveness of the property.

In 17 years the Vickers brothers have developed a property, the value of which measured by an annual net income, would seem almost unreasonable, and which is largely due to personal effort and attention. Besides the grove properties the brothers have good homes in the town of Sebastian, where they reside.

PROPOSITION OFFERING PROTECTION TO THOSE GROWING CITRUS FRUITS

Satsuma development in Louisiana will go forward with assurance of competent protection by Federal authorities if the Parishes of Beauregard, Allen, Calcasieu and Jeff Davis accept the offer made by W. E. Anderson, State entomologist; to give the sum of \$3,000.00 to these parishes to be matched by a like amount to be raised within the parishes for the employment of two men in eradication of citrus diseases.

The matter has been taken up with representative citizens of the four parishes by Mr. J. K. Smith, secretary of the DeRidder Chamber of Commerce, in response to a letter from Mr. Anderson. It is proposed that the \$3,000.00 to be furnished by the parishes in proportion to the assessments.

This would insure a disease-free territory and would prevent citrus canker and other diseases from spreading from infected territory into these parishes which are now practically free. This is considered as absolutely necessary in order to place the Satsuma business on a sound foundation.

Mr. Anderson, in his letter, said: "I am offering this money to sections of the State in which the satsuma industry is being developed and where oranges are a real commercial proposition."

It is understood that the Beauregard police jury is favorable to the proposition outlined and will vote to

accept the offer. Word has not yet been received from the other parishes but the importance of the move will, no doubt, cause the various police juries to make the necessary appropriations.

HOTEL HILLSBORO

Tampa, Fla.

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European Plan, Fireproof 300 Rooms With Baths

THE CENTER OF TAMPA

T. W. RAMSEY

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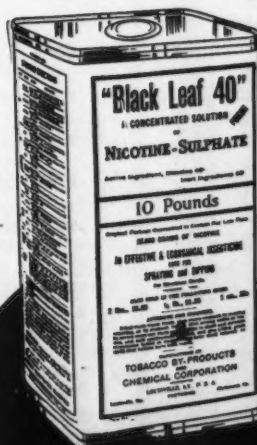
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We ship large or small orders

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Should be
used with
Every Spray



Aphis
Insurance
In Your
Citrus Grove

Serious Aphis infestations have broken out in some sections.

Protect your fruit and rid your trees of Aphis and similar destructive insects at a cost of only a few cents a tree. "Black Leaf 40," the "Old Reliable" nicotine spray, is recommended by Agricultural Colleges and Experiment Stations. Spray singly or in combination with solutions for scale and other grove pests.

Adequate stocks have been placed with "Black Leaf 40" Dealers in all citrus sections.

Tobacco By-Products and
Chemical Corporation
Incorporated
Louisville, Kentucky

Kills
Aphis

"Black Leaf 40"
40% Nicotine

Citrus Growing in Texas

By F. A. Gartner, Falfurias, Texas

Encouraged by your recent favor, I report to you some of the conditions existing here.

I live on a twenty-acre farm, adjoining the town of Falfurias, county seat of Brooks county. The town has 1350 inhabitants, half Mexicans who live on one side of the town and who furnish our cheap labor.

Three years ago I visited the much-advertised Rio Grande valley, looking for a location for a citrus grove. I found the valley attractive. It is full of large irrigation ditches, it is well built up, the towns close together. The people are generally hopeful. The real estate dealers brought in train loads of land seekers. Some of them buy land and make a payment on it. I visited a number of fine citrus groves, a few of them twelve years old. Some of them had ditches to drain the ground water.

All the water for irrigation and for domestic use is pumped from the Rio Grande. The irrigation companies charge a flat rate of about \$4.00 per acre, and for each irrigation \$2 more per acre, which brings the irrigation

to \$12.00 per acre per annum, often more.

Land without any improvements was offered to me at from \$300.00 to \$600.00 per acre, according to location. Five acres is all I really needed for my purpose, but I wanted a few acres more. Most of the soil, except in an occasional resaca, is good. I will mention a six-acre lot planted in about two-year-old citrus trees, that was offered to me at \$1,250 per acre. Then I came to Falfurias. It is located 160 miles due south from San Antonio on the S. A. & A. P. R. R., and is in the same latitude as lower Florida.

I found about eight groves about twelve or thirteen years old and some new ones recently set out.

Since this planting of young trees was done by the people who owned the old groves, it was to me a very favorable sign, that it was a paying proposition. I found the soil around here to be a rich sandy loam, underlaid from 15 inches to 4 feet below the surface with an impervious sheet of clay, keeping moisture from seeping away. No under-drainage is required

here. This place is 34 miles from Riviera Beach on the Gulf, 110 feet above sea level, and is on the slope of the old rich sea bottom with a fall of a little over three feet to the mile toward the Gulf.

The land around here is selling with all improvements at a price from \$15 to \$80 per acre. Some ten years ago, when cattle were the principal industry, there was a drought, stock water became very scarce, and a large number of wells were put down from 500 to 700 feet deep at an expense of \$800 to \$1,500. The water rises close to the surface—a great many flow, but to get a little pressure for long conduits and domestic use, reservoirs are built at the highest place on the farm, usually by throwing up an earthen embankment around a quarter acre, more or less. There are also some concrete tanks. Wind mills pump the water into the tanks, and from thence it is conducted in open ditches or pipes to where it is wanted. The water is soft and very pure and pleasant to the taste.

Cotton, watermelons, cane and corn

There Is Money--

in growing grapes (juice or table) in Florida.

Plant a vineyard this winter and in eighteen months have grapes for sale.

Delicious Florida bunch grapes reach the Northern markets before other sections of the country begin to ship.

A great grape industry is developing in Florida. Now is the time to prepare to plant your vineyard.

Write for our booklet B,
"GRAPES AND HOW TO GROW
THEM."

SOUTHERN NURSERIES

Incorporated

(Largest vineyards and nurseries in Florida)

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In coils and cut to length

Ladders, Factory Made
spruce in lengths up to 30 ft.

Dry Paste for your Labels

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Also a Complete Stock
Fertilizers
Fertilizer Materials
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HAMPERS
AND
CRATES

CHASE & COMPANY

Sanford, Fla.

Ask for our latest Catalogue

THE CITRUS INDUSTRY

grow without irrigation. Some citrus trees here are never watered, and still bring some fruit.

I found that the San Antonio papers quoted California oranges at \$4.25 per box, while Falfurias oranges were quoted at \$6.25 to \$6.50. Falfurias grapefruit requires no sugar. I would like to know why they grow so sweet. Is it the climate, the soil, or what?

For shipping we have the railroad, the express and the improved highway to San Antonio, and can send a truck load in about ten hours.

Eighteen months ago I planted 200 citrus trees. Some shoots of this years growth are six feet long, of good sound wood. I also planted 520 vines of the popular California varieties. Next summer and fall I expect my first crop of grapes and citrus fruits. Mine is the only vineyard here of any size so far. Flann Tokay sold here at 25 cents per pound in the stores. It would not be honest to omit to state that in 1917 the frost did considerable damage to the citrus trees here but that is practically forgotten.

Farmers here would plant more citrus trees than they do but they have raised other crops so long that it has become a habit, and to plant a young grove is expensive. Import nursery stock from Florida, plant the trees, take care of them for four years, take chances. On the other hand, cotton seed is cheap, and brings good returns in six months. Yet I know of six people here who are preparing to plant ten acres of groves.

Unless one has land for sale there is no object to advertise or bring on a boom. It takes four years to produce a grove that even brings a moderate crop. No matter how much planting is done here we cannot glut the market of San Antonio and other South Texas cities in fifteen years.

CITRUS TREES

Our trees have not been infested with Aphis.

Every tree has a fine quality root stock and a careful bud selection.

These features are the fundamentals of a good grove and successful citrus culture.

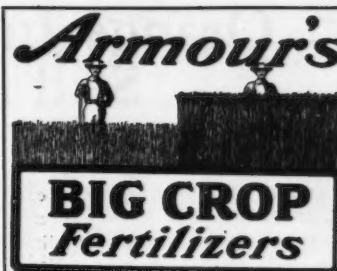
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**Wartmann Nursery
Company**

OCALA,

FLORIDA

Forty-one



"Make every acre do its best"

Fertilize your citrus trees liberally this fall. They need food to restore the vitality used in maturing the present crop and to condition them for a vigorous start in the spring. The amount of spring bloom is largely determined by the fertilizer used in the fall.

For Your Citrus Trees

Let an Armour BIG CROP brand be your choice this fall. Four distinct types of highest quality citrus mixtures from which to select. Several analyses in each type. There is one among them especially suited to the needs of your grove. Descriptive booklet free on request.

Armour Fertilizer Works

Jacksonville, Fla.

gas 'em
ants!
gophers! turtles!
rats! salamanders!
land crabs!
grubs! nematodes!
chinch bugs! moles!

Calcium Cyanide releases hydrocyanic acid gas ~ economical and effective in control of these pests.

Information on request—

AMERICAN CYANAMID CO.
301 State Bank Building, Orlando, Fla.
Main Office: 311 Fifth Ave., New York.

Calcium Cyanide
"A" Dust

Orange Juice Bottled Four Years is Still in Perfect Condition

From the Vero Press.

That the juice of citrus fruits can be bottled and kept in its natural state for an indefinite period of time is the claim of C. J. Brown, of Vero, who offers the actual product as proof.

Mr. Brown has two bottles of orange juice in perfect condition, one of which was bottled four years ago and one two years ago. The juice was put up according to a process discovered by D. T. Eichelberger, now of New York City, but a native of Florida. Mr. Eichelberger hit upon what is said to be the only method ever devised for bottling the juices of citrus fruits so that they will keep indefinitely in their natural state.

While living in New York City, Mr. Brown and Mr. Eichelberger became acquainted and organized a company under the laws of Delaware to manufacture bottled orange and grapefruit juice. So many failures have been made in endeavoring to work out a satisfactory process of accomplishing this that they found difficulty in interesting the necessary capital and last year Mr. Brown returned to Vero. Recently he has placed the proposition before certain big interests in Florida who are now investigating it with a view to fi-

nancing the company.

While in New York Mr. Brown had a comparative analysis made of fresh orange juice and juice that Mr. Eichelberger made three months before. Their chemical constituents were found to be practically the same and a bacteriological analysis showed no bacteria to be present in the bottled juice. In their report of the analyses the chemists stated there was no apparent reason why the bottled juice should not remain in perfect condition indefinitely.

"Because nobody else has ever been able to bottle the juice of citrus fruits satisfactorily it is difficult for people to believe that Mr. Eichelberger's method is a success," said Mr. Brown. "But the product that he has been turning out for several years speaks for itself. It is practically impossible to distinguish the juice bottled by his method from fresh juice, and I have never known a bottle of it to spoil.

"It is easy to see what the development of such an industry would mean for Florida. There is almost an unlimited market for bottled orange and grapefruit juice. It could be sold at a price that would enable the manufacturers to pay the growers good returns for all their second grade and cull fruit, and thus help to stabilize the citrus business."

IMPROVE APPEARANCE AND QUALITY OF FRUIT

Continued from page 35

The savings on the cost of cultivation applied to the installation of a system of irrigation would be quite a help on that item. The additional net on better quality fruit will also add a considerable sum to the fund.

Aside from the occasional application of stable manure, the cost of the fertilizer would not be increased very much. Though it is likely that a little more fertilizer will be necessary on thin high-pine land than is used with intensive culture.

The yield per tree usually obtained by reduced cultivation would at times be less, but with the improved quality the net would still be better than before. It is this effect on the yield that makes me advise against the omission of all cultivation.

FRUIT AND NUT BONBONS: Use $\frac{1}{2}$ cup of pecans, $\frac{1}{2}$ cup of figs, $\frac{1}{2}$ cup of candied orange peel, 1 cup of raisins, $\frac{1}{4}$ cup of peanut butter, the grated rind of one orange. Put all through food chopper with enough orange juice added to make of right consistency to handle. May be made into rolls and sliced.

"Every Tree A Perfect Tree"

By Bayard F. Floyd

This pamphlet should be read by every citrus grower. It is filled with helpful ideas and suggestions and is now ready for distribution and is free for the asking.

The recent heavy rains have leached the fertilizing elements out of the soil in many groves, making it important not to omit or delay the fall application of fertilizer. We have already batched and perfectly cured large quantities of our leading fall formulas, some of which are:

Ideal Fruiter No. 8 3-8-8

Ideal Fruiter No. 10 3-8-10

"It costs more to do without than to buy the best"

IDEAL FERTILIZERS

WILSON & TOOMER FERTILIZER CO.,

Jacksonville, Florida

**STATE PLANS FOR
HUGE DISPLAY AT
NEW YORK EXHIBIT**

Alabama will use all of the 7,500 feet of space, reserved at Grand Central Palace, for the Southern Exposition in New York City next January, and the gulf section of the state, Mobile and Baldwin counties, will have among the most interesting displays, according to a report made to President K. J. Milling of the Chamber of Commerce, by David Holt, director of publicity, who attended the conference of exposition leaders in Montgomery.

Jesse B. Hearin, secretary of Alabama, and manager of the Farm Bureau of the Montgomery Chamber of Commerce, presided at the conference and read letters from Gadsden, Huntsville, Anniston, Birmingham and other points, agreeing to take a leading part in the southern display. The conference decided upon two main exhibits, one to be in charge of the Alabama Polytechnic Institute of Auburn and the other in charge of the University of Alabama. Auburn will specialize in agricultural displays, while the university will present a complete geological exhibit.

Various communities will reserve space for the exhibition of things they are most interested in, while large industries, including the Alabama Power company and the Tennessee Coal and Iron company, will use much space, and will be asked to send the famous negro quartet to the show.

Belief at the Chamber of Commerce is that Mobile and Baldwin counties can have a leading exhibit at the New York show. The two counties will specialize in game, fish, citrus fruits and hardwoods, and will be shown also in the two main exhibits.

"Sing a song of canned goods on the pantry shelf,
Every hustling family just goes and helps itself;
Canned things for boiling, for stewing and for pie—
Don't you feel sorry for those folks who have to buy?"

Dad, remember in harvesting and selling the crops and stock of the year that most boys leave the farm because dad takes it all and leaves nothing for the boy.

In writing to advertisers, please mention The Citrus Industry.

THE CITRUS INDUSTRY

Florida is fundamentally an agricultural state, the tourist and real estate business notwithstanding.

Forty-three

Kill those annoying ants by fumigating their beds with a solution of sodium of potassium cyanide.



EMULSO
THE BETTER SPRAY

KILLS

EMULSO controls white fly and scale insects quickly and without harm to your trees or fruit. Mixes equally well with any water.

FIELD SERVICE

Our staff of experts in citrus disease control is always available for your information and help. Just mail a card requesting this service.

Peninsular Chemical Co.
Orlando, Florida

State Distributors:
Niagara Sprayers
Niagara Sulfodust
Niagara Vegetable Dusts
Niagara Dusting Machines

White fly and Scale Insects

Frost and Freeze Insurance

Weather conditions all over the United States have been topsy-turvy all summer. The Weather Bureau at Washington predicts the coldest winter in a decade. Will Florida share it with the rest of the United States?

Why Take Chances

INSURE YOUR CITRUS TREES
YOUR NURSERY TREES
YOUR BEARING TREES **TODAY**

It Is Better to Be Safe Than Sorry

FLORIDA REALTY & MORTGAGE CO.
Insurance Department

311 Franklin St.

Tampa, Fla.

Local representative wanted for general insurance lines.

NOTES OF THE TRADE

ATLANTIC COAST LINE MAKES IMPORTANT CHANGES

In order to take care of its rapidly increasing freight traffic and to assure Florida shippers the best possible service the Atlantic Coast Line is establishing General Agencies at Miami and Palmetto, is opening new offices at West Palm Beach and Lake Wales and is increasing the number of its representatives at existing offices in Palmetto, Tampa, Orlando and St. Petersburg, according to announcement made recently by James F. Mead, Assistant General Freight Agent of the Atlantic Coast Line in charge of the Florida territory. A division of the territory heretofore covered by Atlantic Coast Line traffic representatives is also being made which will enable each of the General and Commercial Agents to give more personal attention to shippers and thereby improve the type of service which can be rendered. Several promotions are also involved.

C. A. Maull, heretofore Commercial Agent at Miami, is being promoted to the position of General Agent and will continue to be in charge of solicitation along the Florida East Coast having supervision over the newly established office at West Palm Beach. At this office there will be a Commercial Agent, Traveling Freight Agent and the necessary office force. The Atlantic Coast Line is the first railroad to recognize the importance of West Palm Beach and surrounding territory and to establish at West Palm Beach an agency to directly serve it.

M. H. Dorsett, for several years Commercial Agent at Palmetto, Fla., is likewise being promoted to General Agent in charge of the Manatee Territory including Sarasota. The Tampa Southern Railroad, affiliated with the Atlantic Coast Line, has recently built into this point and is handling large quantities of freight to and from this rapidly growing section. It is expected that through passenger service between Sarasota and the North will be established on December 3rd, thus giving Sarasota advantages which it has not heretofore enjoyed. An additional Traveling Freight Agent will be attached to the Palmetto office.

The phenomenal growth and development of the City of Tampa with a corresponding amount of freight handled over the Atlantic Coast Line to and from this point, have made an increase in the force necessary and an additional Soliciting Freight Agent is being placed there.

Likewise at Orlando, which has come to be the headquarters for most of the independent fruit agencies of Florida, and which is one of the fastest growing cities in the State, there is a constant growing volume of traffic. In order to take care of the needs of the shippers at this point, another Soliciting Freight Agent is being added to the present force.

The unprecedented growth of St. Petersburg continues to astonish all who know of the development there and is resulting in greatly increased shipments of freight. The office of the Commercial Agent at this point is being strengthened by an additional Soliciting Freight Agent and new and separate offices are being opened in order that the needs of the shippers can receive special attention.

The new office at Lake Wales in charge of a Commercial Agent, a Traveling Freight Agent and the necessary office force is being established for the purpose of giving intensive service to shippers in the Scenic Highlands Section. Until the Atlantic Coast Line recognized the possibilities of this territory and built its line from Haines City to Moore Haven the section was undeveloped and unproductive save for a few scattered groves and cattle ranches. With the building of the Haines City Branch there was an immediate and almost unbelievable increase in property value and a development which has been hardly short of miraculous. Studies made by the Atlantic Coast Line indicate that lands, which before the construction of the railroad, sold for only a few dollars an acre are now bringing \$1,000 per acre and it is impossible to estimate the value of citrus fruits and other products which have been made possible by the construction of this line. Heretofore traffic service to the Scenic Highlands section has been taken care of from

the Orlando office but the wonderful growth of the territory has made it desirable to establish an office which shall be entirely devoted to caring for the needs of the shippers of this section. The tourist travel into the Scenic Highlands territory will be facilitated and encouraged by the establishment of the Scenic Highlander, a new, fast, first class train to be operated between Haines City and Sebring, which will offer more improved accommodations and connections for visitors to this attractive part of the State.

The additions to the Freight traffic Department at the points specifically named does not mean that only shippers and receivers at those points will receive benefit of the improved personal service. The division of territory which is included in this progressive program is expected to afford the representatives of the Atlantic Coast Line an opportunity to give more personal attention to the needs of shippers and receivers through the entire State of Florida, and to result in greatly improved service for all of its patrons.

The work of double tracking the main line of the Atlantic Coast Line between Jacksonville and Richmond is being speeded up and will be completed during 1925; thus making the Atlantic Coast Line the only double track line between Jacksonville and the East.

A CREDITABLE FLORIDA INSTITUTION

A notable figure in the financial world made a remark to the effect that "when you sell U. S. short you do not reconcile facts with past history." The same remark can be applied to the grand old state of Florida.

A century ago Florida was purchased for the sum of five million dollars. It languished in a mire of innocuous desuetude for over sixty years, and its progress dates back less than forty years. Today the assessed valuation based on a forty per cent assessment is nearly \$500,000,000—on a hundred per cent valuation it would go much over a billion dollars. Part of this valuation is on improved property, city dwellings, farm houses, barns, silos, packing

houses, industrial and shipping property. This will run into hundreds of millions of dollars.

The point to be made is that The Great State of Florida with its vast assets in buildings, with a building program all over the state adding millions more each month—has no Incorporated Fire Insurance Company owned and controlled by home people. Compared with other Southern states, we find North Carolina has nine home companies, South Carolina three, Georgia two, Alabama one, Tennessee one and Virginia four. A mutual fire insurance company has operated for eight years in Tampa and has paid a 20 per cent dividend each year. Out-of-state fire insurance companies last year received from Florida over nine million dollars in premiums. Their fire loss was less than 36 per cent. The balance, 64 per cent of nine millions, was retained by foreign companies for profits, sinking funds, etc. Of this nine million dollars paid out to northern companies only \$21,000 was retained in Florida banks, the balance being sent north. This situation has awakened an interest in the incorporation of a home company and the result is the formation of the South Eastern Fire Insurance Company with Tampa as its home office.

Experienced officers have been named as Directors to guide the destinies of this much-needed institution, and a well-known figure in the underwriters world has been engaged to round out the personnel.

The South Eastern Fire Insurance Company will start off with \$200,000 business that will come from a merger with the Florida Mutual Fire Insurance Company. The insurance assets of the new company will be \$750,000. The value of the stock at this time is thirty dollars per share on common stock. Home people could not invest in a more profitable or protected public service corporation. Experienced investors when buying stocks or bonds usually go into their history—record of yearly dividends, the individuals behind them, searching for the influence that might aid or depress their earning power and safety. Upon a personal visit to the South Eastern Fire Insurance Company's office in the W. F. S. Building, Tampa, Florida, the officers will unfold the gilt edge investment that they have to offer to the entire satisfaction of those interested in seeing Florida become independent in the insurance field.

In writing to advertisers, please mention The Citrus Industry.

THE CITRUS INDUSTRY

How many of your hens laid through September? Those that did are the ones to feed for future eggs; those that didn't are the ones to feed for the axe.

Forty-five

Some fruit every day is better than beauty clay.

Don't be afraid to bathe, you won't shrink.

Banner

- SMITH

- Savage

BANNER Compressed Air Sprayer

Tank 21 in. x 7½ in. Double seamed and well riveted. Capacity about 4 gallons. 2 in. brass pump. Pump casting heavy brass, machined, carrying strap adjustable with snap ends. Automatic nozzle, brass, for three different sprays. Will not clog. Made with galvanized or brass tank as ordered. Adapted for all spraying purposes, Gardens, Vines, Shrubbery, Poultry Houses, Cotton, Disinfectants, Carbola, etc. Well made, high grade sprayer and absolutely guaranteed in every detail.



Manufactured by
D. B. Smith & Company
Utica, N. Y.

SAVAGE DRY Powder Duster

Highly adapted for dusting Truck Crops, Cucumbers, Watermelons, Strawberries, Potatoes, Shrubbery, Trees, Cotton, etc. Dusts everything in powder form. Ball bearings throughout, gears packed in sealed gear case. Nozzle arm raised or lowered



to any angle. Feed lever instantly adjusted for 1 to 20 lbs. per acre. Easily operated and noiseless. Endorsed by U. S. Dept. of Agriculture.

Distributed by
Florida Agricultural Supply Co.,
Jacksonville, Fla.

5 - New Pullman Trains - 5

The "Everglades Limited" [Nov. 16]

7:25 P. M.	Lv. Boston	Ar.	8:00 A. M.
12:30 A. M.	Lv. New York	Ar.	6:45 A. M.
9:30 A. M.	Lv. Washington	Ar.	6:30 P. M.
7:40 A. M.	Ar. Jacksonville	Lv.	8:10 P. M.

The "Tampa Special"

9:00 A. M.	Lv. Jacksonville	Ar.	P. M.
10:25 A. M.	Ar. Palatka	Lv.	7:35 P. M.
11:47 A. M.	Ar. DeLand	Lv.	5:55 P. M.
12:20 P. M.	Ar. Sanford	Lv.	4:05 P. M.
1:02 P. M.	Ar. Orlando	Lv.	3:05 P. M.
1:32 P. M.	Ar. Kissimmee	Lv.	2:33 P. M.
2:20 P. M.	Ar. Haines City	Lv.	1:55 P. M.
3:05 P. M.	Ar. Lakeland	Lv.	1:10 P. M.
3:26 P. M.	Ar. Plant City	Lv.	12:51 P. M.
4:10 P. M.	Ar. Tampa	Lv.	12:15 P. M.
6:10 P. M.	Ar. Palmetto	Lv.	10:15 A. M.
6:15 P. M.	Ar. Bradentown	Lv.	10:10 A. M.

The "Pinellas Special"

9:20 A. M.	Lv. Jacksonville	Ar.	7:00 P. M.
3:50 P. M.	Ar. Tarpon Springs	Lv.	12:15 P. M.
4:27 P. M.	Ar. Clearwater	Lv.	11:50 A. M.
4:30 P. M.	Ar. Belleair	Lv.	11:47 A. M.
5:20 P. M.	Ar. St. Petersburg	Lv.	11:15 A. M.

The Tampa Special and Pinellas Special are Observation, Pullman Dining-Car Trains and carry Through Sleepers from North, East and West.

"Scenic Highlander"

9:00 A. M.	Lv. Jacksonville	Ar.	7:35 P. M.
2:40 P. M.	Lv. Haines City	Lv.	1:55 P. M.
3:15 P. M.	Ar. Lake Wales	Lv.	12:55 P. M.
3:29 P. M.	Ar. Babson Park	Lv.	12:42 P. M.
3:43 P. M.	Ar. Frostproof	Lv.	12:27 P. M.
4:07 P. M.	Ar. Avon Park	Lv.	12:03 P. M.
4:25 P. M.	Ar. Sebring	Lv.	11:45 A. M.

The Scenic Highlander and Winter Haven-Fort Myers Specials are Parlor Car Trains.

"Winter Haven-Fort Myers Special"

9:00 A. M.	Lv. Jacksonville	Ar.	7:35 P. M.
2:40 P. M.	Lv. Haines City	Lv.	1:55 P. M.
3:10 P. M.	Ar. Florence Villa	Lv.	1:00 P. M.
3:13 P. M.	Ar. Winter Haven	Lv.	12:56 P. M.
3:45 P. M.	Ar. Bartow	Lv.	12:25 P. M.
4:30 P. M.	Ar. Bowling Green	Lv.	11:40 A. M.
4:44 P. M.	Ar. Wauchula	Lv.	11:37 A. M.
5:35 P. M.	Ar. Arcadia	Lv.	10:35 A. M.
6:25 P. M.	Ar. Punta Gorda	Lv.	9:45 A. M.
7:25 P. M.	Ar. Fort Myers	Lv.	8:45 A. M.

ATLANTIC COAST LINE

THE STANDARD RAILROAD OF THE SOUTH

Banana Real Estate

By W. E. Bolles, Oldsmar, Fla., at Banana Growers' Convention, Winter Haven, Fla., October 29

A tourist stopped his automobile and watched three men who were planting bananas in a field. He asked the first man what they were doing, and he replied:

"Planting bananas."

He asked the second man:

"Making a banana plantation," he said.

He inquired of the third man, who answered:

"We are helping to establish a new fruit industry for Florida."

The banana is more than a fruit, it truly is a food-fruit. I know a man who went on a long journey of exploration into the wilds of Honduras. Their food supplies ran out. The party of sixteen, including white men and Indians, lived on bananas. They ate them raw, and they also mashed them, adding water, pepper and salt, and boiled them to a thick creamy soup. The men all felt strong and healthy when they reached the next village, after having eaten nothing but bananas for three weeks.

In discussing banana real estate I am aware that some know considerable about it, and others possibly do not. This reminds me of a lawyer who was trying a case, and he quoted a large amount of law to the judge. The latter finally grew impatient and remarked that the judge might be presumed to know some law. The lawyer replied:

"I presumed that, the last time, and lost my case."

A new kind of real estate is on the market in Florida. It is called banana real estate, that is, land which has already been planted to bananas, or land especially suited for them. It is a recognized department of the real estate business, just as distinct as citrus land and truck farm land.

Sometimes we find a tract which will grow anything successfully, a sort of general purpose land which will grow big vegetable crops and bigger banana crops. Such real estate with all the physical characteristics required to make extra large banana profits, safe and sure, and in a good location, is a valuable piece of property to own.

Recently we bought a farm of eighty acres between Tampa and Oldsmar, which we are planting to bananas. My son, Paul K. Bolles, and I spent many a day driving

around examining one good piece of land after another, until we finally decided this eighty was the best proposition. It has forty-five acres of cleared land, to start with, and it is composed largely of deep rich muck, just like the best parts of the Everglades, yet located right close to Tampa, the largest city in South Florida. The balance of the farm is rich and fertile hammock land.

We will grow bananas on all those eighty acres, and make from them \$80,000. or more per year. In the meantime Tampa is growing by leaps and bounds, in that direction; therefore inside of about five years, may be less, we will probably triple the capital we invested, in addition to the handsome banana profits. A colony of other banana growers is gathering around us, and we will not have any marketing problems, because we will ship in carload lots, and people are asking for our fruit and plants faster than we can grow them. We already have three other places. After we finish planting this eighty, my business associates and I have decided to set out 120 acres more, and after we get through with that, we are going to plant some more. In other words, we are in this business to stay, because we know from experience there is big money in it. We have made more money every year than we did the year before.

Banana-growing is the best proposition I know about in the State of Florida today. It means more profits per acre, year in and year out, at less cost and less risk. We have helped a number of other people to get good locations to make money, and in every case we not only paid attention to the quality of the soil, water supply, drainage and all the other physical considerations which go toward making a property good for bananas, but we also selected locations where the property itself is sure to increase in value.

You take good land worth \$200. per acre and plant it to bananas, and inside of one year it is worth \$1,000 or more per acre. Why? Because it can earn \$1,000 or more per acre per year. When a property can earn \$1,000 to \$2,000 per acre per year, that property is surely worth \$1,000 to \$2,000 per acre. Meanwhile the

way Florida is growing, there is a very pleasing natural increase in value besides.

All the banana advertising and banana publicity the State of Florida has been receiving is one of the important forces contributing to its prosperity. Florida never was in a more prosperous condition as regards real estate values and real estate activity than it is today, and things are constantly getting better. The widespread publicity of Florida banana business has attracted the attention of the world. People are saying:

"I didn't know they are growing bananas commercially in Florida. They must have a real climate down there, or they couldn't do it."

There is another land, far, far away, called California, where they are trying to grow bananas; and they grow a few in extreme southern Texas and Louisiana, but Florida has many advantages over them all, when you come right down to the practical business of making lots of money by growing lots of bananas.

As to the best varieties to plant, I am liberal-minded. We grow Bolles Improved Cavendish, Bolles Heavy-bearing Hart, also the Martinique or Gros Michael which is the imported banana seen so commonly in the stores, and we also grow the red-skinned banana called the Red Jamaica, and several other good kinds. We like them all. And they all like us. We never have any diseases or bugs such as have caused losses many times to growers of other fruit crops. We are not afraid of too much cold or too much heat. We do not have to worry about anything at all. And that's a comfortable feeling.

REPORT ON OCCURRENCE OF MEDITERRANEAN FRUIT FLY IN ALMERIA, SPAIN

In the interest of the growers of the state, the Growers and Shippers League of Florida some time ago protested to the U. S. Department of Agriculture against the importation of Almeria grapes which might be infected with the Mediterranean fruit fly, for the reason that this infestation might be carried into the fruit producing districts of Florida and seriously damage the citrus fruit pro-

THE CITRUS INDUSTRY

Forty-seven

duced in the State.

Secretary Robinson is just in receipt of further advice from the U. S. Department of Agriculture in which they say:

"It is obvious from the investigations now in progress in Spain that the Mediterranean Fruit Fly is at present established in the province of Almeria infesting oranges, peaches, quinces, pears, figs and apricots.

The Federal Horticultural Board in its earlier announcements regarding the conditions under which further entry of grapes might be permitted from the Almeria district emphasized the necessity of complete eradication of the Fruit Fly from that district as the only satisfactory safeguard against importation of grapes carrying fruit fly larvae, since infested grapes may be identical in appearance with those which are not infested.

It is greatly to be regretted that the efforts of the Spanish grape growers to eradicate the Mediterranean Fruit Fly in the district referred to have been unsuccessful, but in view of the very extensive fruit interests that would be jeopardized if the Mediterranean Fruit Fly should be brought into this country it is now clear that it will be impossible to permit the

entry of the Almeria grapes into the United States during the ensuing year."

ORCHARDS INSPECTED

J. W. Pace, chief inspector for the state agricultural department, spent a few days in Baldwin county, visiting a large number of orchards in this immediate vicinity. Dr. Van Aller, of Mobile accompanied him. Ten nurseries in this district applied for inspection prior to July 1, this will be given free of charge, but others applying will be required a special fee since the funds provided for the work are too small to cover all expenses.

Mr. Pace expects to return to Baldwin county for a stay of ten days, later this fall. He states that the trees in this section look better than any he has seen in the citrus district, and that they seem to have withstood the weather of the past winter better than any others. He fully expects, with no further backset, that within the next two or three years the recent freezes will be entirely forgotten, as the trees now bid fair to be producing bountifully by that time. Old orchards are having all trees lost replaced by new stock, and many new orchards are

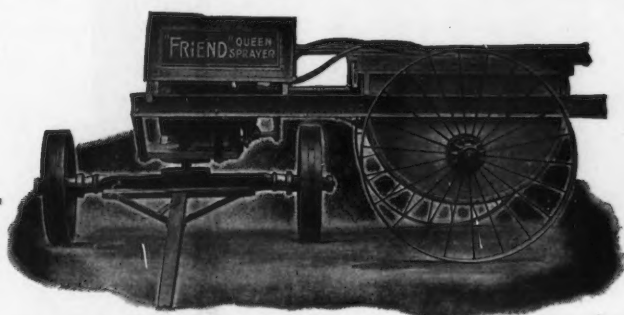
being planted.

He and Dr. Aller were asked if they had seen any bearing satsuma trees during their travels, and they stated that they saw one tree, in a grove at Theodore with 30 oranges on it. In a very few instances, trees in this district are bearing small numbers of the golden fruit.

TROUBLE AHEAD

FOR CANARY BANANAS?

Banana planters on the Canary Islands are becoming fearful for the security of their foreign markets due to a growing competition from other banana countries. This anxiety is in part due to recent disclosures to the effect that the Canary Island variety is now being cultivated in many other countries and is by no means a monopoly of the Canary Islands which has been the general belief up until this time. According to Consul William P. George, Tenerife, in a report to the Department of Commerce, the banana growers are calling upon the Spanish government for protection and their plan is for the intensive development of Spanish markets for the products of the Canary Islands, as a safeguard against serious competition in the fruit markets of other countries.



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**"Quality Fertilizer for Quality
Fruit."**

PEST THREATENS

VALLEY CITRUS

Citrus of the Rio Grande Valley is being threatened with a pest which corresponds to the pink boll worm on the cotton, according to County Agent Louis H. Alsmeyer who is asking citizens of the Valley to combine in fighting the smuggling into this section of the avocado, which is believed to have Marelos fruit fly in it.

Once this pest secures a foothold in the Valley it will spread rapidly and will mean the loss of thousands of dollars to the citrus interests in the Valley, as there is no known control for it except to destroy the fruit on which it feeds.

The habit of smuggling avocados across the Rio Grande is rather general, Mr. Alsmeyer, explained, and little is thought of it. Persons go to the other side, eat avocados and sometimes put the seed in their pockets, or throw them into the car. Planting the seeds enables the fruit fly to get started on this side of the river.

To prove the danger of the fruit fly, Mr. Alsmeyer purchased some oranges at Matamoros and found the Marelos fruit fly in the seed of them. A number of citizens have signified their willingness to co-operate in a drive to keep this pest out of the Valley.

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CLASSIFIED ADVERTISEMENTS

The rate for advertisements of this nature is only five cents per word for each insertion. You may count the number of words you have, multiply it by five, and you will have the cost of the advertisement for one insertion. Multiply this by the total number of insertions desired and you will have the total cost. This rate is so low that we cannot charge classified accounts, and would, therefore, appreciate a remittance with order. No advertisement accepted for less than 50 cents.

REAL ESTATE

FOR SALE—A rare bargain: An orange grove; five hundred orange trees and one hundred grapefruit trees, all full bearing. Situated on one of the finest bodies of citrus soil and one of the best citrus sections of the state. This grove's record last year was phenomenal. While the average grove throughout the state gave only indifferent returns, this little grove netted, \$1,700. Reasons for selling given on application. Address Box 68, Wildwood, Florida.

WANTED—To hear from owner of farm for sale, for fall delivery. O. K. Hawley, Baldwin, Wis.

FOR SALE CHEAP—Eleven acres high, rocky citrus land; 4 acres cleared with small house, and large nice bearing orange trees full of fruit. Nicely located near Altamonte Springs, Fla. For particulars write H. A. Lunquiere, 41 N. W. 29th St., Miami, Fla.

WILL EXCHANGE West Texas cattle ranch for unimproved or improved land in Florida. What have you? Give price and full particulars. T. E. Bartlett, 2410 McKinley Ave., El Paso, Texas.

EARLY BEARING Papershell Pecan trees, budded or grafted and guaranteed. Great shortage this year. Write for catalog today. Bass Pecan Company, Lumberton, Miss.

Want to hear from owner having farm for sale; give particulars and lowest price. John J. Black Chippewa Falls, Wisconsin.

NURSERY STOCK

AVOCADOS—Priced from 85 cents up, in hundred lots depending on variety. Good assortment varieties, large plants, prompt shipment. Let us quote you. REASONER BROTHERS, Oneco, Fla.

FOR SALE—Cleopatra Mandarin seedlings. September delivery, enter order now. Cavendish banana plants and avocado trees. Write for price list. R. E. Skinner, Hillsboro Hotel, Tampa, Florida. May-4t.

Owing to the large acreage which will be planted to grapes the coming season it will be necessary to reserve plants early. Our plants are true to name, vigorous and well rooted. Reserve your plants now. Write for booklet No. a2. SOUTHERN ADAPTED NURSERIES Bartow, Fla.

BANANA PLANTS for sale. Improved Cavendish, Hart, Orinoco, Ladyfinger. Information free. W. E. Bolles, Oldsmar, Fla.

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Is yours for the asking,
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Offer to the grower young trees of

standard variety, backed by 30 years of nursery experience and a guarantee which only honest dealing can justify. For full information address A. H. Sloan, Box 413, Bartow, Fla.

AGENTS WANTED—We want good, reliable parties to act as our agents in their local communities, selling our citrus trees on a liberal commission. A good opening for the person who will devote all or a part of their time working among their neighbors. Lake Nursery Co., Leesburg, Fla.

MISCELLANEOUS

BABY CHICKS—White Leghorns, Minorcas, Reds, etc. We are booking orders now for Fall and Winter hatches. Continental Hatchery, Box 133, Valdosta, Ga.

FOR SALE—Dairy and stable manure, car lots. Link & Bagley, Box 464, Tampa, Florida. 8t

WHITE WYANDOTT Cockrels, regal strain—the best in the country, direct from Martin pens. Utility and show birds \$5.00 each; also eggs for hatching \$5.00 per 15. W. A. King, Gen. Del., St. Petersburg, Florida.

SOUTHDOWN SHEEP, White Rocks, Toulouse Geese, Guineas, Angora and Milk Goats, Circular free. Woodburn, Clifton, Va.

AGENTS—Quality Shoes, quick sellers. Big commissions, immediate returns! Repeat orders. Experience unnecessary. Write full particulars. Tanners Shoe, 2011 C St. Boston.

FALL CHICKS—mean large profits for Southern poultry raisers. Write for prices on chicks and custom hatching. Continental Hatchery, Box 233, Valdosta, Ga.

JELLY GUAVAS. Our guava "Snow-white" is the finest jelly guava ever grown. Nice plants 25c each, \$2 for 10; \$18 for 100. Send for free catalog of other fruits and flowers. Royal Palm Nurseries, Oneco, Florida.

FOR SALE

Remington Portable Typewriter with standard keyboard. Has all advantages of larger machine. Ideal for farm and home use. \$60. cash or sold on easy terms. Remington Typewriter Co., 103 Parker St., Tampa Florida.

SHOES—Become our local salesman selling high grade shoes direct to wearer. Quick seller and good commission. Experience not required. TANNERS SHOE MFG. CO., 2014 C St., Boston, Mass.

CONDENSED DATA—on Tung Oil Industry has been compiled by B. F. Williamson and E. L. Lord. By application to B. F. Williamson, Gainesville, Florida, this booklet will be sent to you postpaid for fifty cents.

POSITION WANTED—Competent citrus grove superintendent wants supervision of groves where quality fruit is essential aim. 12 years technical and practical experience. Care Citrus Industry.

PULLS HILLS ON HIGH—Saves Gallons of gas: Mr. Ed. Nailor of Kansas City, has perfected an amazing invention that goes on the carburetor of any car. Three minutes to put on or take off—no boring or mechanical work to do, but changes whole performance of your car. Does not only better, has more power, less carbon but increases mileage 50 per cent and more. Agents wanted. Mr. Nailor wants to send to one driver in each locality this amazing invention to try on his own car. See for yourself how fine it works and how easy to drive around in your spare time and pick up \$30 to \$100 a week. No capital, mechanical skill or sales experience needed. Just send name today. Ed. Nailor, 735 Prod. Ex. Bldg., Kansas City, Mo.